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Government Sponsorship of the Federal National Mortgage Association and the Federal Home Loan Mortgage Corporation

The United States Department of the Treasury

July 11, 1996

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Government Sponsorship of the Federal National Mortgage Association and the Federal Home Loan Mortgage Corporation

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The United States Department of the Treasury

July 11, 1996

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THE DEPUTY SECRETARY OF THE TREASURY
WASHINGTON

July 11, 1996

The Honorable Alfonse M. D'Amato
Chairman
Committee on Banking, Housing,
and Urban Affairs
U.S. Senate
Washington, D.C. 20510-6075

Dear Mr. Chairman:

I am pleased to transmit the Department of the Treasury's report on the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac).

As required by section 1355 of the Federal Housing Enterprises Financial Safety and Soundness Act of 1992, this report examines the desirability and feasibility of ending the federal government's sponsorship of Fannie Mae and Freddie Mac. Pursuant to this statutory mandate, we have conducted a broad review of the government's relationship with the two enterprises. We examined the benefits and constraints of government sponsorship, the enterprises' public purpose, and the effects of maintaining or amending the existing relationship between the enterprises and the federal government. The Department of Housing and Urban Development, the Congressional Budget Office, and the General Accounting Office have also conducted studies pursuant to the Act.

As a result of over three generations of U.S. government policy supporting homeownership, the United States now has the strongest housing finance market in the world. Today, homeownership rates in the U.S. are at their highest levels in sixteen years. Fannie Mae and Freddie Mac have played critical roles in building a liquid secondary market for home mortgages, thereby helping make homeownership possible for millions of Americans. Through their affordable housing activities, they have also contributed to expanding homebuying opportunities for low- and moderate-income families.

We believe that firm conclusions regarding the desirability of ending or modifying the government's sponsorship of Fannie Mae and Freddie Mac are premature. Considerable uncertainty exists on an array of important issues. For example, it is still too early to assess the efficacy of various provisions of the 1992 Act, notably including the affordable housing goals applicable to the two enterprises, and the new system of safety and soundness regulation. Moreover, attempting to quantify the benefits and costs of government

retain a substantial portion of the benefits of their government subsidy. These and other issues would benefit substantially from further study aimed at helping policymakers better understand the benefits and costs of continued federal government sponsorship both to the public and to the enterprises.

Fannie Mae and Freddie Mac are important institutions participating in markets that affect millions of Americans. Ultimately, any change in their status will require a rigorous public discussion and a broad consensus. We hope this report is a helpful contribution to that process.

Sincerely,

Lawrence Summers
Deputy Secretary

Enclosure

THE DEPUTY SECRETARY OF THE TREASURY
WASHINGTON

July 11, 1996

The Honorable James A. Leach
Chairman
Committee on Banking and Financial Services
U.S. House of Representatives
Washington, D.C. 20515-6050

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retain a substantial portion of the benefits of their government subsidy. These and other issues would benefit substantially from further study aimed at helping policymakers better understand the benefits and costs of continued federal government sponsorship both to the public and to the enterprises.

Fannie Mae and Freddie Mac are important institutions participating in markets that affect millions of Americans. Ultimately, any change in their status will require a rigorous public discussion and a broad consensus. We hope this report is a helpful contribution to that process.

Sincerely,

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SUMMARY

Created by Congress to provide stability and liquidity to the secondary mortgage market, the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac) are privately owned companies known as government-sponsored enterprises (GSEs). Like other GSEs[1], Fannie Mae and Freddie Mac have corporate charters granted by the federal government. To promote a public purpose, those charters limit Fannie Mae and Freddie Mac to a particular line of business -- operating in the secondary mortgage market -- and provide various government benefits that lower their operating costs and enable them to borrow at rates much lower than other financial institutions.

As a result of over three generations of U.S. government policy supporting homeownership, the United States now has the strongest housing finance market in the world. To make housing available to more Americans, Congress made an explicit judgment to direct credit toward home mortgages. One way it sought to do so was by creating intermediaries such as Fannie Mae and Freddie Mac that would buy and resell mortgages. Fannie Mae and Freddie Mac have played critical roles in building a liquid secondary market for home mortgages. This system has helped make homeownership possible for millions.

Despite this enormous progress, many low- and moderate-income and minority families continue to face substantial barriers to homeownership. President Clinton has made increased homeownership a national priority, and with the help of his National Homeownership Strategy, the homeownership rate has reached 65.1 percent this year, the highest level in fifteen years. Both GSEs have made, and continue to make, important contributions toward meeting the national goal of increased homeownership.

Fannie Mae and Freddie Mac are privately owned. Their stock trades actively on the New York Stock Exchange, and had a total market value of over $48.7 billion at the end of 1995. Last year they paid a total of $957 million in common stock dividends. As a result, in part, of their government sponsorship, Fannie Mae and Freddie Mac can participate in the mortgage market at lower costs and in ways that other private financial institutions cannot. Clearly Fannie Mae and Freddie Mac must serve their shareholders, but they must also comply with their federal charters. This ambiguity of responsibility, characteristic of GSEs, continually raises issues of accountability: To what extent is a particular GSE responding to its federal mandate and to what extent to the need to generate returns for its stockholders? What tradeoffs does it make between these objectives?

In the Federal Housing Enterprises Financial Safety and Soundness Act of 1992, Congress recognized these issues, and recognized that many of the circumstances that had led

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[1] The other GSEs include the Federal Home Loan Bank System, the Farm Credit System, the Student Loan Marketing Association, and the College Construction Loan Corporation. See U.S. Department of the Treasury (1990,1991) for more information on GSEs.

to the establishment of Fannie Mae and Freddie Mac in their current forms had changed. The Act directed the Treasury Department and three other agencies[2] to report on the desirability and feasibility of ending the federal government's sponsorship of Fannie Mae and Freddie Mac, and thereby removing both the limitations and benefits of federal sponsorship. If privatized, Fannie Mae and Freddie Mac could operate as fully private entities under state corporate charters. Their shareholders and management would determine the nature and scope of their business activities.

In response to this mandate, the Treasury Department conducted a broad review of the government's relationship with Fannie Mae and Freddie Mac. We paid particular attention to how ending the federal government's sponsorship of Fannie Mae and Freddie Mac might affect the cost of home mortgage credit and the efficiency of the mortgage credit market. We also reviewed their affordable housing activities, to help assess whether and how these might be affected.

The Secondary Mortgage Activities of Fannie Mae and Freddie Mac

Fannie Mae and Freddie Mac operate by purchasing conforming residential mortgage loans -- mortgages that meet their specifications and are below a certain size limit. The GSEs purchase these mortgages from banks, thrifts, mortgage banks, and other mortgage loan originators. By doing so, they give these originators access to the broader national capital market.

Fannie Mae and Freddie Mac finance these purchases in two ways. First, they pool mortgages and issue securities backed by the pooled mortgages, in a process called securitization. Mortgage-backed securities represent interests in the underlying mortgages. The mortgage borrowers' monthly payments of interest and principal are used to pay investors. The GSEs guarantee these payments and, in return, collect a guarantee fee. Second, the GSEs purchase mortgages for their own portfolios, and fund them by issuing debt securities to investors.

The Benefits of Federal Sponsorship

Federal sponsorship helps Fannie Mae and Freddie Mac undertake their activities in several important ways. First, it reduces the GSEs' operating costs by: exempting them from paying state and local corporate income taxes; exempting their securities from registration with the Securities and Exchange Commission; and authorizing them to issue and transfer securities through the Federal Reserve's book-entry system.

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[2] The other agencies are the U.S. Department of Housing & Urban Development, the Congressional Budget Office, and the General Accounting Office. Each has produced a separate analysis and report.

Second, government sponsorship permits the GSEs to borrow at rates better than the highest-rated private firms -- and very close to the rates on Treasury securities, which carry the government's full faith and credit. In addition to giving the GSEs the advantages mentioned above, federal law gives special status to GSE securities. It permits national banks to hold them in unlimited amounts. It makes them lawful investments for federal fiduciary and public funds and lawful collateral for public deposits. It authorizes the Secretary of the Treasury to purchase up to $2.25 billion of each GSE's obligations (and thus extend credit to the GSE). In addition, GSE securities are eligible collateral for loans from Federal Reserve Banks and Federal Home Loan Banks, and the Federal Reserve buys and sells such securities in its open market operations. The federal government does not guarantee GSE securities -- in fact, federal law requires a disclaimer of any U.S. obligation. Investors nonetheless believe that federal sponsorship provides a *de facto* guarantee -- because they believe that Congress would not permit either GSE to fail. This perception, in turn, enables Fannie Mae and Freddie Mac to borrow at rates lower than any private financial institution.

Third, the two GSEs hold less capital than comparable fully private firms, without incurring higher borrowing costs. At the end of 1995, the two GSEs had a combined $1.4 trillion in mortgage-backed securities outstanding, mortgages in portfolio, and other assets, but only $16.8 billion in capital. The two GSEs had an average capital-to-assets ratio of 3.9 percent. That ratio falls to 2.75 percent if one allocates capital, at the minimum rate currently required by the GSEs' safety and soundness regulator, to the $972 billion in mortgage-backed securities that the GSEs have guaranteed but do not carry on their balance sheets. By contrast, FDIC-insured savings institutions, which invest predominantly in mortgage-related assets, had an average capital-to-assets ratio of 7.8 percent.

We estimate the benefits of federal sponsorship are worth almost $6 billion annually to Fannie Mae and Freddie Mac. Of this amount, reduced operating costs (i.e., exemption from SEC filing fees and from state and local income taxes) represent approximately $500 million annually and the borrowing cost advantage over $5 billion annually. These estimates are broadly consistent with the magnitudes estimated by the Congressional Budget Office and General Accounting Office. As we discuss below, Fannie Mae and Freddie Mac appear to pass through part of these benefits to consumers through reduced mortgage costs and retain part for their own stockholders.

These three types of benefits aid Fannie Mae and Freddie Mac in both aspects of their business -- securitizing mortgages and retaining mortgages in portfolio. The benefits currently involve no direct government payments to the two GSEs and under current rules are not reported in the federal budget. Nonetheless, they have real economic value to the GSEs and involve real costs for the government to provide, a conclusion readily accepted by economic and financial experts. While fully private firms frequently pay fees to third-party guarantors to provide credit enhancement for their securities, the GSEs receive at no cost to them a package of benefits that makes the credit standing of their securities superior to anything available in the marketplace.

The Contributions of Fannie Mae and Freddie Mac

Providing Liquidity for Mortgage Lenders

Congress created Fannie Mae as a government corporation in 1938 to purchase and resell mortgages, and thereby help provide liquidity to financial institutions that had limited access to national capital markets. Freddie Mac was created in 1970 with a similar purpose. Both organizations have, as intended, contributed strongly to the development of a more open, effective, and liquid mortgage market.

Over the past 25 years, these two companies and the financial markets have changed dramatically. Interest rate ceilings have been eliminated and limitations on geographic expansion reduced. Mortgage lenders now have geographic diversification and access to national (and international) capital markets.

One of the most important changes was the development of securitization itself. The first mortgage backed security was created in 1970 by the Government National Mortgage Association, Ginnie Mae. Since then, Ginnie Mae, Fannie Mae, and Freddie Mac have each contributed to the development of mortgage securitization. Today, approximately 48 percent of outstanding single-family mortgage debt -- over $1.7 trillion -- has been pooled and securitized. Mortgages securitized by Fannie Mae and Freddie Mac represent approximately 62 percent of the dollar total.

This activity is no longer limited to GSEs or to government organizations like Ginnie Mae; private companies securitized 46 percent of jumbo mortgages in 1994, a rate comparable to the 52 percent of conforming mortgages securitized by Fannie Mae and Freddie Mac. Private companies have also begun a secondary market in mortgages with substandard credit quality (commonly called B-C credit mortgages), as well as auto loans, credit card loans, and a variety of other obligations.

Despite the development of private liquid secondary markets, ending the GSEs' federal sponsorship would probably cause an increase in home mortgage rates for conforming, conventional loans (as discussed below). Although the amount of any such increase is difficult to determine, it should be smaller than the fluctuations in mortgage rates attributable to normal variations in macroeconomic and credit market factors.

Savings on Mortgage Costs

One question is the extent to which Fannie Mae and Freddie Mac pass on the fruits of government sponsorship to consumers in the form of reduced mortgage costs. The GSEs can pass through those benefits by purchasing mortgages at higher prices (lower mortgage rates) than they would without government sponsorship. Such a pass-through is inherently difficult

to measure. In preparing this report, we sponsored one study of this issue and reviewed others.

Most discussions of pass-through focus on the differences between the market rates for the fixed-rate conforming mortgages that Fannie Mae and Freddie Mac can and do purchase, compared to non-conforming mortgages (generally larger jumbo mortgages) that can be purchased only by other private financial institutions. Some comparisons have been made based upon the advertised on-offer rates for the two types of mortgages. These comparisons typically show a rate advantage for conforming mortgages. Other studies have compared the Federal Housing Finance Board's data on mortgages that actually have closed and have found average rates on jumbo loans lower than on conforming loans.

However, raw comparisons may mislead, because other factors could affect the price differential between conforming and jumbo loans; the size and terms of the mortgages, their geographic location and credit quality, or the depth and liquidity of the market for larger versus smaller homes may have independent effects. After attempting to control for some of these factors statistically, recent studies suggest that the GSEs reduce interest rates on fixed-rate conforming, conventional mortgages by roughly 20 to 40 basis points. It is unclear how much of such a differential results from pass-through of GSE benefits rather than from such other factors as the GSEs' technical and managerial efficiency; furthermore, the differential may change over time. A plausible estimate of 30 basis points, the midpoint of this range, suggests that in 1995 the GSEs passed through approximately $4 billion of pre-tax benefits.

This calculation necessarily omits certain factors. It does not include the value of the stability the GSEs may give the conforming, conventional mortgage market. Nor does it place a value on the extent to which the GSEs make affordable housing finance more available than it otherwise would be (an issue discussed below).

It is even more difficult to estimate with certainty how modifying or ending government sponsorship would affect mortgage interest rates. Although some increase seems likely, certain factors suggest that the increase in rates might be less than the pass-through estimate given above. Fannie Mae and Freddie Mac currently have no effective competition in the conforming, conventional secondary mortgage market except each other. Nonetheless, many financial institutions compete vigorously in other secondary markets, for both mortgages and other types of obligations. Depending upon how changes were undertaken, competition from other financial institutions could moderate the effects of privatization. These issues have, however, received very little analysis; further research is necessary before definitive conclusions can be drawn.

Supporting Affordable Housing

Last year, the Department of Housing and Urban Development (HUD) released the Administration's blueprint for increasing homeownership, the *National Homeownership Strategy: Partners in the American Dream*. Many of the nation's critical unmet housing needs today differ from those of the past. Mortgages are now widely available, and so the Administration and Congress have focused on the needs of borrowers who continue to find homeownership beyond their grasp. The *Homeownership Strategy* outlines a series of steps that the public and private sectors should take to increase homeownership opportunities for all Americans.

Both Fannie Mae and Freddie Mac have expanded their activities in these areas. They have developed specialized mortgage products, increased underwriting flexibility, improved homebuyer education programs, and entered into partnerships with local governments and nonprofit organizations to provide additional affordable housing assistance.

In 1992, Congress directed HUD to develop a set of housing goals to ensure that the GSEs' mortgage purchases included loans to such targeted potential borrowers as low-income households and residents of central cities and rural areas. HUD issued interim requirements in October 1993. The final regulations, issued in December 1995, established targets for the GSEs' purchases of mortgages from underserved areas, low- and moderate-income households, and very-low-income households. The final regulation also established fair lending requirements, including a requirement that the GSEs assess whether their underwriting standards, business practices, repurchase requirements, pricing, fees, and procedures may result in impermissible discrimination, and how such standards and practices may affect purchases of mortgages for low- and moderate-income families.

Fannie Mae and Freddie Mac already meet or exceed HUD's affordable housing goals in most respects. In 1995, Fannie Mae satisfied all three interim housing goals, and Freddie Mac satisfied all but the central city goal. Still, under a variety of measures, the GSEs' relative participation in financing affordable housing is less than that of FHA and FDIC-insured depository institutions.

By the nature of their activities, Fannie Mae and Freddie Mac face challenges relative to other market participants in promoting affordable housing. They do not themselves make any direct loans; they must rely on others to originate loans that they may then purchase or help securitize. Current law permits them to purchase mortgages with less than a 20 percent downpayment only if the borrower obtains private mortgage insurance or if the private sector or a government agency provides some other credit enhancement that limits the GSEs' credit risk.

There is continuing innovation in the primary market (i.e., the market for originating mortgages) and by private mortgage market participants, such as private mortgage insurance

companies, finance companies, and FDIC-insured depository institutions. Fannie Mae and Freddie Mac can and do contribute to overcoming their challenges in this area by working cooperatively with mortgage originators and mortgage insurance companies to develop mortgage products for the underserved.

Since 1992, Fannie Mae and Freddie Mac have increased their holdings of mortgages from low-income borrowers and underserved areas. For example, Fannie Mae, which has most strongly emphasized lending in inner-city neighborhoods, increased its activity in underserved areas (as defined in HUD's 1995 final rule on GSE housing goals) from 22.9 percent in 1993 to 31.2 percent in 1995, while Freddie Mac's activity increased from 21.3 percent to 25.1 percent during the same period. Although this improved performance obviously results in part from HUD's oversight and encouragement, it is not possible to ascertain the extent to which it represents a response to that oversight, to the affordable housing activities of mortgage originators, or to diversification of the GSEs' business activities as their basic market becomes more saturated. For example, the majority of single-family mortgages that counted toward meeting the HUD goals in 1995 (64 percent or more for each goal and each GSE) went to borrowers who made downpayments of at least 20 percent. Since a lack of funds for downpayments constitutes one of the main impediments to homeownership in lower-income communities, it is unclear to what extent the goals have stimulated mortgage originators to make loans that they would not otherwise have made. However, affordable housing loans often entail higher marketing, servicing, and credit costs than other GSE-purchased loans, so these historical loan-to-value (LTV) ratios may understate the GSEs' effect on affordable housing. It is too early to evaluate fully whether a trend toward more flexible underwriting practices will increase the availability of higher LTV loans and spur additional mortgage originations to low- and moderate-income homebuyers.

HUD reports that it designed the affordable housing goals to be achievable under economic conditions more adverse than the recent period of high affordability, and notes that they may become binding constraints as market conditions change. The goals may themselves be revised periodically to encourage the GSEs to increase their affordable housing activities beyond what the fully private sector might otherwise do.

Ending government sponsorship would in all probability have some effect on the GSEs' contributions to affordable housing. Without being able to estimate the extent to which the GSEs undertake affordable housing activities because of federal requirements, rather than for other reasons, one cannot estimate how rescinding or revising HUD's goals would affect their activities. As HUD and the GSEs gain more experience with the goals, we should have better understanding of the effects of these programs.

Expanding opportunities for homeownership should remain one of our highest priorities. The actions of GSEs and other financial institutions in this crucial area will merit continued attention from HUD and Congress.

Implications of the *Status Quo*

Effect on Treasury Borrowing Costs

Together, Fannie Mae and Freddie Mac have over $1.4 trillion in debt and mortgage-backed securities outstanding -- an amount equal to nearly two-fifths of the Treasury securities held by the public. Since GSE securities may be substituted for Treasury securities for many purposes (as discussed above), and since they benefit from investors' perception that the federal government implicitly stands behind them, those securities compete directly with Treasury securities in the government securities market. To some extent, therefore, the considerable and growing supply of GSE securities (relative to the supply of Treasury securities) tends to lower prices in the government securities market and thereby increase the Treasury's borrowing costs.

Nonetheless, it is extremely difficult to estimate by how much. Financial markets are both dynamic and complex; many factors affect their demand, supply, and segmentation. When the Treasury previously attempted (Treasury 1990, 1991) to estimate the effect of GSE borrowing on Treasury costs, it could not quantify those effects. These estimation difficulties remain; nonetheless, further analysis seems appropriate. Since the public holds $3.7 trillion of U.S. government debt, each basis point of increase in such costs would raise annual budgetary outlays by $370 million.

Effect on Other Credit Markets

While the benefits of GSE status provide an important subsidy that promotes homeownership, such a subsidy has economic costs. To the extent that the GSEs pass through the benefits of government sponsorship, they reduce the price of, and increase the demand for, mortgage credit relative to other types of credit. The economic effect of the subsidy to mortgage credit -- absent increases in the savings pool or attracting capital from abroad -- is to raise the price or reduce the amount of credit for other uses, such as small businesses, exporters, rural communities, and other business and consumer borrowers. Measuring such effects is, however, even more difficult than measuring the potential effects on Treasury borrowing costs.

Potential for Increased Reliance on the GSEs

Maintaining the current GSE status of Fannie Mae and Freddie Mac could, over time, find the housing finance market increasingly reliant on the GSEs as sources of credit for conforming, conventional mortgages. This increased reliance, coupled with the advantages the GSEs receive from government sponsorship, could undermine the viability of portfolio lenders operating in local markets, such as community banks and thrift institutions. If that were to occur, borrowers who do not easily meet the GSEs' underwriting standards may lose competitive local mortgage sources that may serve their needs better than national lenders.

In addition, greater reliance on the GSEs could increase risk to financial markets and taxpayers by further concentrating mortgage credit risk in just two companies -- companies with relatively low capital-to-asset ratios, whose GSE status alters investors' risk-reward calculus.

Potential Risk to Taxpayers

Although Fannie Mae and Freddie Mac have developed a range of mechanisms to hedge the risks of their portfolios and protect their financial integrity against movements in the financial markets, there is no perfect guarantee that they will always be safe, sound, and profitable entities. Recognizing this, Congress recently established HUD's Office of Federal Housing Enterprise Oversight (OFHEO) as the two GSEs' federal safety and soundness regulator. OFHEO's establishment is a positive development that we expect to have a salutary effect on the two GSEs' safety and soundness. Such regulation is necessary, in part because the very nature of government sponsorship attenuates the normal market discipline that investors would otherwise exercise in purchasing securities issued by a fully private firm.

OFHEO's mission is unquestionably important. Overseeing the GSE's safety and soundness diminishes the likelihood of financial difficulties that could raise any question of government assistance. The stringency and effectiveness of OFHEO's regulatory policies will therefore be critical.

Further Analysis Required

As noted above, further analysis of many of these issues is necessary for any informed conclusions. Research on both the current conforming mortgage market and the affordable housing market would help clarify both the risks and benefits of any action by Congress.

There should also be detailed analysis of the operational and market implications of any particular action that Congress considers. If Congress decided to maintain the GSE status of Fannie Mae and Freddie Mac, but sought to increase the public benefits they provide or reduce the government benefits they receive, it could pursue a wide range of options. Illustrative of the many options that have been suggested are: strengthening the affordable housing goals by requiring Fannie Mae and Freddie Mac to increase their market shares or to direct more activity to targeted areas or borrowers; requiring the GSEs to subsidize affordable housing directly, through programs analogous to the Federal Home Loan Banks' Affordable Housing Program; requiring increased involvement in financing multifamily mortgages; requiring more directed assistance (both educational and financial) to lower-income borrowers, state and local governments, and non-profit organizations; limiting the size of the GSEs' retained mortgage portfolios; freezing or reducing the conforming loan limit; removing certain benefits of GSE status, such as the exemption from registering securities with the SEC; and requiring periodic estimation and public disclosure of the value of the government benefits that the GSEs receive.

These options need further analysis before a decision can be made on whether or how to adjust government sponsorship.

Conclusions

Fannie Mae and Freddie Mac have succeeded in developing a liquid secondary mortgage market for conforming, conventional mortgages. Congress, while recognizing the important benefits provided by the GSEs' activities, has asked whether it is now both feasible and advisable to change their status.

The securitization techniques and other secondary mortgage activities originally pioneered by Ginnie Mae, Fannie Mae, and Freddie Mac are now well-established. They are practiced by many fully private firms and are applied not only to non-conforming mortgages but to many other types of obligations. For these reasons, there seems little doubt that the secondary market for conforming, conventional mortgages could operate efficiently and effectively even if Fannie Mae's and Freddie Mac's government sponsorship were altered.

The more critical issue is whether the benefits of a change would be sufficient to outweigh the disruption and risks to the home mortgage market that it might entail.

Government sponsorship provides benefits to Fannie Mae and Freddie Mac that are quite tangible, even though the federal budget does not report them. Any quantification is, of course, uncertain. Taking into account the reduced borrowing and operating costs associated with GSE status, we estimate these benefits to be on the order of $6 billion annually.

These government benefits should, in turn, be compared to the benefits that Fannie Mae and Freddie Mac provide, in reduced mortgage costs and in access to mortgages, that would not otherwise be available. These benefits are even more difficult to estimate with confidence. One plausible estimate would be that Fannie Mae and Freddie Mac reduce average mortgage costs by perhaps 30 basis points in their part of the market, for a total savings to consumers of some $4 billion annually; however, there are many ways in which such an estimate could be refined.

The pass-through estimates do suggest the effect the GSEs have on mortgage rates but do not distinguish between a pure pass-through of GSE benefits and the two firms' technical and managerial efficiency. Although ending government sponsorship would remove the former, it may have no effect on the latter.

Combining the estimates of a $4 billion pass-through with the $6 billion of the GSEs' benefits of federal sponsorship, implies the GSEs' shareholders retained in pre-tax income approximately $2 billion of GSE benefits. This estimate is generally consistent with comparable estimates reported by CBO (1996) and GAO (1996-A).

Not included in these pass-through estimates is the extent to which the GSEs provide added value through their affordable housing activities. The extent to which their affordable housing activities would be affected by ending the GSEs' government sponsorship is uncertain. With HUD's affordable housing goals still relatively new, it is premature to judge how much of the GSE activity is driven by HUD's administration of these requirements, and how much by the basic business objectives of Fannie Mae and Freddie Mac.

Ending or modifying government sponsorship would entail risk, but would have potential benefits. Its potential effect on mortgage interest rates would represent an important risk, as would any potential negative consequence for the availability of credit for affordable housing. Potential benefits could include increased market competition, more efficient credit allocation, reduced U.S. government borrowing costs, and reduced potential risk to taxpayers.

Although the analysis undertaken in this report and others is substantial, we believe firm conclusions regarding the desirability of ending or modifying government sponsorship of Fannie Mae and Freddie Mac are premature. The GSEs' experience under the 1992 Act is relatively short, and many of the most important issues could benefit from further study. Furthermore, should Congress decide to act, there are several possible approaches, each with different implications that should be analyzed and reviewed.

Fannie Mae and Freddie Mac are important institutions participating in markets that affect the homeownership of millions of Americans. Ultimately no change will be made without rigorous public discussion and a broad consensus. We hope this report is helpful to that process.

* * *

Chapter I reviews the legislative history of Fannie Mae and Freddie Mac and describes their business operations. Chapter II examines the benefits and constraints of government sponsorship in relation to the two GSEs' business operations. Chapter III discusses the GSEs' activities, both in the general secondary mortgage market and in financing affordable housing. Chapter IV considers potential effects -- both for housing finance and for the GSEs themselves -- of ending the GSEs' government sponsorship and provides a brief review of issues for further study that could alter the federal government's relationship with the GSEs.

INTRODUCTION

Two private companies created by the federal government supplement the flow of credit to the residential mortgage market. The Federal National Mortgage Association (Fannie Mae), established in 1938, and the Federal Home Loan Mortgage Corporation (Freddie Mac), established in 1970, purchase mortgages originated by banks, savings associations, mortgage bankers, and other lenders. Combined, the two enterprises had approximately $1.4 trillion in assets and outstanding mortgage-backed securities at the end of 1995.

Fannie Mae and Freddie Mac are known as government-sponsored enterprises (GSEs).[1] GSEs are privately owned financial intermediaries with federal charters that limit their corporate activity to a specific credit function. The government has created GSEs to overcome perceived shortcomings in various credit markets, mainly those for housing, agriculture, and higher education loans. As financial intermediaries, the GSEs raise funds in the capital market to make or purchase loans, issue pass-through securities, or guarantee the liabilities of others.

The federal government does not guarantee or stand behind the liabilities of any GSE. Nonetheless, capital-market investors believe that the federal government implicitly backs the GSEs, enabling the GSEs to operate under favorable terms. The GSEs also receive other substantial benefits from federal sponsorship, such as their securities having equal standing with Treasury securities as permissible investments for national banks.

Shortly after the savings and loan debacle, Congress requested several government studies on the extent to which GSEs pose risks to the taxpayers. Although the reports identified no immediate problems with the GSEs' safety and soundness or federal oversight,[2] they focused attention on the need to strengthen the federal government's oversight of Fannie Mae and Freddie Mac. At the time, these two GSEs -- huge institutions with capital ratios lower than most financial firms -- lacked a true safety-and-soundness regulator.

Partially in response to these reports, Congress enacted the Federal Housing Enterprises Financial Safety and Soundness Act of 1992 [P.L. 102-550], which created the Office of Federal Housing Enterprise Oversight (OFHEO). As the safety and soundness regulator for Fannie Mae and Freddie Mac, OFHEO establishes and enforces capital requirements and examines the GSEs' operations.

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[1] Other GSEs include the Federal Home Loan Bank System (FHLBank System), the Farm Credit System (FCS), the Federal Agricultural Mortgage Corporation (Farmer Mac), the Student Loan Marketing Association (Sallie Mae), and the College Construction Loan Insurance Association (Connie Lee).

[2] See U.S. Department of the Treasury (1990, 1991), U.S. General Accounting Office (1990, 1991), and Congressional Budget Office (1991).

At the same time, Congress required a further set of reports to consider a larger question: Should Fannie Mae and Freddie Mac retain their existing ties to the federal government? Congress required the Secretary of the Treasury, the Secretary of Housing and Urban Development (HUD), the Director of the Congressional Budget Office (CBO), and the Comptroller General, who heads the General Accounting Office (GAO), to examine the desirability and feasibility of ending the federal government's sponsorship of Fannie Mae and Freddie Mac, and removing all indicia of such sponsorship, including federal charters and the benefits and constraints of GSE status. Using the shorthand term privatization to refer to such changes,[3] Congress asked that the reports consider the consequences of having Fannie Mae and Freddie Mac operate as fully private entities under state corporate charters, with their shareholders and management determining the nature and scope of their business activities (unconstrained by any specific limitation or requirement of federal law).

To fulfill our responsibilities under this statutory mandate, we sought information from many sources. We reviewed previous government studies and non-government- sponsored research on the question of ending a GSE's government sponsorship. We examined the legislative history relating to Fannie Mae and Freddie Mac and discussed the GSEs' relationship to the government with senior officials of both companies. We reviewed and analyzed financial data provided by the two GSEs and data on the residential mortgage market and other asset-backed securities markets. We met with participants in the financial services and housing industries to discuss trends in mortgage finance and the potential effects of ending the GSEs' government sponsorship.

We also joined HUD, CBO, and GAO in sponsoring five academic research papers that examine the issues raised in the mandate. The papers were presented in seminars, subjected to academic review, and published, along with reviewers' written comments, in a compendium entitled *Studies on Privatizing Fannie Mae and Freddie Mac*.[4] Fannie Mae and Freddie Mac participated in the seminars, offering their views on the methodology and findings of each paper. These studies provide valuable research on the issues and represent important contributions to the literature on Fannie Mae and Freddie Mac. However, the studies express the views of the authors and reviewers, and not necessarily those of the Treasury, HUD, CBO, or GAO.

This report considers the following questions: To what extent have Fannie Mae and Freddie Mac accomplished their public purposes? Do public policy reasons exist for

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[3] As Fannie Mae and Freddie Mac are already privately owned, with stock traded on the New York Stock Exchange, the changes involved would differ from privatizing a government agency or government-owned corporation.

[4] U.S. Department of Housing and Urban Development, *Studies on Privatizing Fannie Mae and Freddie Mac*, prepared for the U.S. General Accounting Office, U.S. Department of Housing and Urban Development, U.S. Department of the Treasury, and Congressional Budget Office, May, 1996.

continuing the benefits and constraints that GSE status imposes on Fannie Mae and Freddie Mac? What would be the broader potential effects of ending the government's sponsorship of Fannie Mae and Freddie Mac? What would be the consequences of maintaining the *status quo*?

CHAPTER I

FANNIE MAE, FREDDIE MAC, AND THE HOUSING CREDIT MARKET

Fannie Mae has undergone several significant changes over the course of its history, but its primary public purpose remains the same: providing liquidity to housing finance by maintaining an active presence in the secondary mortgage market. Freddie Mac serves the same basic public purpose. The federal government saw a need for such institutions because of market imperfections in the supply of credit to housing finance. Depression-era economic conditions highlighted these imperfections, as did the inflation-driven problems of the financial system during the 1960s through 1980s.

A. The Creation and Evolution of Fannie Mae and Freddie Mac: A Historical Overview

Financial turbulence during the Great Depression overwhelmed the housing finance system. At the time, the most common form of housing finance was a balloon mortgage, which required a large downpayment and periodic interest-only payments over a relatively short repayment period (generally between one and six years). When the full principal became due at the end of that period, the lender (usually a bank or savings and loan) decided whether to renew the loan. As the Depression deepened, borrowers often could not make their balloon payments, lenders often could not refinance loans, and home prices fell. The cumulative result was a precipitous drop in new financing activity and a collapse of home construction.

In 1932, Congress responded by creating the Federal Home Loan Bank System to support the local institutions that specialized in housing finance -- savings associations and savings banks. The Federal Home Loan Banks were designed to provide liquidity for long-term mortgages that replaced balloon mortgages. Using their mortgage portfolios as collateral, member institutions could fund greater lending activity by borrowing money from their regional Federal Home Loan Banks.

To encourage mortgage lending by shielding lenders from default risk, the government created the Federal Housing Administration (FHA) in 1934. The FHA provided mortgage default insurance and promoted the long-term fully amortizing mortgage. FHA insurance also expanded access to credit by facilitating lower downpayments.

But lenders remained reluctant to tie up their funds in illiquid long-term mortgages, a problem the government addressed in 1938 by creating Fannie Mae to support a secondary market in FHA-insured mortgages. Fannie Mae raised funds in the national capital markets and purchased FHA-insured mortgages nationwide, primarily from banks and mortgage

bankers. It also resold such mortgages to other investors. Fannie Mae's activities made the FHA loan market more liquid and promoted the development of FHA mortgage lending nationwide. Fannie Mae was also designed to bring a degree of stability to the mortgage market. During periods of tight money, Fannie Mae could make mortgage credit more available by purchasing mortgages, selling them later to investors when credit conditions eased.

In its early years, Fannie Mae purchased relatively few mortgages. With the post-World War II growth in housing, however, Fannie Mae began building its mortgage portfolio. In 1948, the government facilitated further growth by authorizing Fannie Mae to purchase mortgage loans guaranteed by the Veterans Administration (VA).

In the 1954 Federal National Mortgage Association Charter Act [P.L. 83-560], Congress directed Fannie Mae to begin liquidating its mortgage portfolio[1] and act more as a conduit (i.e., selling mortgages it bought to other investors, then recycling the sales proceeds back into the primary mortgage market). To ensure that Fannie Mae could resell any mortgages it purchased, the Act revised Fannie Mae's charter to restrict it generally to purchasing mortgages that met the purchase standards of private institutional mortgage investors. The 1954 Act also transformed Fannie Mae into a mixed-ownership government corporation and provided for its gradual transfer to private ownership.

Congress completed that transfer in 1968 by dividing Fannie Mae into two parts: a privately owned corporation (which retained the name Federal National Mortgage Association), and a new government corporation (the Government National Mortgage Association, or Ginnie Mae) within HUD.[2] The new Fannie Mae was now a government-sponsored enterprise: owned by stockholders who elected a majority of the company's directors, yet limited by its charter to providing supplemental assistance to the secondary market for FHA/VA mortgages. Ginnie Mae became responsible for providing a secondary market for special housing programs and liquidating the old Fannie Mae's remaining mortgage portfolio.

Fannie Mae, the Federal Home Loan Banks, and other secondary market investors helped depository institutions weather episodes of tight money, but could not offset the macroeconomic disruptions that began in the 1960s. As inflation increased during the 1960s and 1970s, interest rates began climbing. The combination of rising interest rates and interest-rate ceilings imposed by the government under Regulation Q caused acute problems for

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[1] Weicher (1994, p. 53).

[2] Weicher (1988, pp. 310-11) identifies the federal government's 1967 budget reforms as a key reason for splitting Fannie Mae. Under the new unified budget rules, Fannie Mae's mortgage purchases counted as budgetary outlays. Reconstituting Fannie Mae as a privately owned corporation kept its mortgage purchases off-budget.

housing finance.[3] When interest rates on alternative investments exceeded the Regulation Q ceilings, depositors had an incentive to move their funds out of depository institutions. This disintermediation process disrupted the flow of credit to finance housing. Regulatory restrictions on depository institutions' geographic and portfolio diversification also contributed to uneven regional flows of housing credit.

In response to the credit crunch of 1969-70 and to regional disparities in mortgage credit availability, Congress adopted two changes in 1970. First, Congress permitted Fannie Mae to begin purchasing conventional mortgage loans (i.e., non-FHA, non-VA mortgages). Second, Congress created the Federal Home Loan Mortgage Corporation (Freddie Mac) within the Federal Home Loan Bank System (which was owned cooperatively by thrift institutions) to provide a secondary market for conventional loans, many of which were held by savings and loans. By fostering a secondary market in conventional mortgages, Congress sought to make mortgage credit more available, mitigate the effect on savings and loans of Regulation Q-related credit crunches, and improve the regional distribution of housing finance credit.

Fannie Mae responded to its new powers by rapidly building its mortgage portfolio, which soon exceeded that of even the largest savings and loan institution.[4] Indeed, Fannie Mae's balance sheet looked much like that of a savings and loan, with its assets nearly all in long-term, fixed-rate mortgages and its liabilities relatively short-term. When interest rates soared in the late 1970s and early 1980s, Fannie Mae encountered some of the same difficulties as did savings and loans, and by 1981 had a negative net worth of almost $11 billion.

Freddie Mac's initial business strategy differed from Fannie Mae's. Instead of competing with its thrift-institution owners by holding mortgages in portfolio, Freddie Mac followed Ginnie Mae's lead and focused on securitizing mortgages.[5]

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[3] The Federal Reserve Board's Regulation Q, adopted pursuant to a 1933 Act of Congress, limited the interest rates banks paid on deposits. In 1966, Congress authorized the Federal Home Loan Bank Board to impose similar limits on the interest rates savings and loan institutions paid on deposits (although in practice the limits for savings and loans were slightly higher than those for banks). The remainder of this report will use Regulation Q to refer to both the Federal Reserve's limits on banks and the Federal Home Loan Bank Board's limits on savings and loans.

[4] Weicher (1994, p.55).

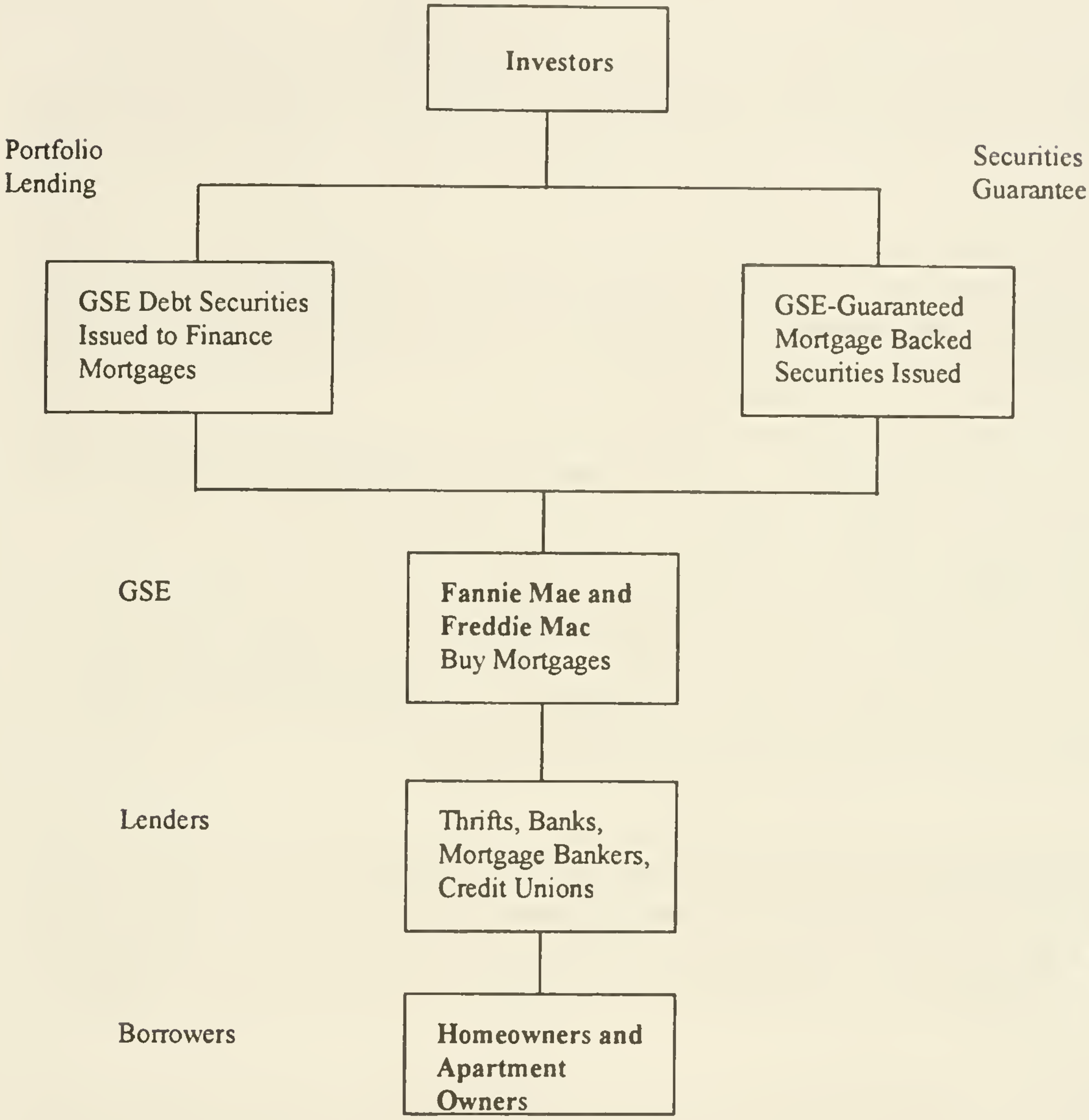
[5] A basic description of securitization follows in the next section. Ginnie Mae does not actually securitize or purchase mortgages but facilitates the securitization of FHA and VA mortgages by guaranteeing the timely payment of principal and interest on the underlying pool of FHA and VA mortgages that make up mortgage-backed securities issued by approved private sector entities. Ginnie Mae's guarantee carries the full faith and credit of the United States. In what follows in this study, the term securitize or purchase in relation to Ginnie Mae will refer to this guarantee function.

Both Fannie Mae and Freddie Mac grew rapidly through the mid-eighties, partly due to increases in the size of loans they were allowed to purchase and to an expansion of the market fostered by new product development. With much of the thrift industry under stress by the end of the 1980s, and with Fannie Mae and Freddie Mac increasingly important in housing finance, Congress sought to adapt the GSEs' structure and public purpose to changing conditions and ensure the GSEs' safety and soundness. In 1989, the ownership of Freddie Mac was restructured to include a new class of freely transferable voting common stock, like Fannie Mae's, thereby removing restrictions that had generally limited its ownership to thrift institutions. In 1992, Congress established the Office of Federal Housing Enterprise Oversight (OFHEO) as the safety and soundness regulator for Fannie Mae and Freddie Mac and refined the two GSEs' mission statements to broaden their market of affordable housing loan activities.

B. Secondary Mortgage Market Operations of Fannie Mae and Freddie Mac

Fannie Mae and Freddie Mac operate in the secondary market for residential mortgage loans, as required by their charters. Consequently, they do not make mortgage loans directly to homebuyers. Instead, they buy mortgages from mortgage lenders and finance these purchases by creating and selling securities backed by pools of mortgages (securitization) or by issuing debt securities and retaining the mortgages in their own portfolio. (Figure I.1 depicts this intermediation process.) The GSEs' charters preclude them from buying one-family mortgages over a specified threshold (currently $207,000) known as the conforming loan limit, which is based on an annually adjusted market index.

Figure I.1: Secondary Market Operations of Fannie Mae and Freddie Mac



Source: GAO (1990, p. 26).

Securitization involves transforming illiquid mortgage loans into liquid, tradeable mortgage-backed securities, which represent interests in a pool of loans. While Fannie Mae and Freddie Mac sometimes buy individual mortgages from lenders, more often they buy a group of mortgages at once. In a typical transaction, the GSE buys mortgages with similar interest rate structures, age, and underwriting characteristics from a lender who retains a portion of the monthly mortgage payments as compensation for servicing the pool of loans. The GSE retains a guarantee fee, and passes the remaining portion of the monthly mortgage payments on to the ultimate investors, the holders of the mortgage-backed securities for that loan pool.

While investors bear the interest rate risk[6] associated with holding mortgage-backed securities, Fannie Mae and Freddie Mac bear a part of the credit risk by guaranteeing the payment of principal and interest to the investors. The guarantee fee retained by the GSEs is essentially an insurance premium for this guarantee.

The mortgage-backed securities issued by Fannie Mae and Freddie Mac vary based on the characteristics of the mortgages. Stripped mortgage-backed securities separate the principal and interest payment obligations into distinct classes of securities. Real estate mortgage investment conduits (REMICs), a tax-advantaged structure, issue securities that represent a beneficial interest in a fixed pool of mortgages. Like other mortgage-backed securities, REMICs pay investors using the cash flows from the underlying mortgages or mortgage-backed securities. However, the principal and interest payments are allocated in various ways among tranches with short-, intermediate-, and long-term maturities. Most classes receive current interest payments on the outstanding principal, but do not receive principal payments until all previous maturity classes are retired.[7]

Like depository institutions, Fannie Mae and Freddie Mac also buy and hold individual mortgages in their retained portfolio, which poses both credit risk and interest rate risk. The retained portfolio generates income from the difference between the interest rate the borrower pays (net of the servicing fee paid to the loan servicer) and the interest rate the GSE pays for its funds, minus the GSE's operating costs and credit losses. Unlike depository institutions,

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[6] Interest rate risk refers here to changes in the value of mortgages occurring because of changes in market interest rates. Like all other loans and securities, mortgages change in value as interest rates rise or fall. This aspect of interest rate risk is especially important in the case of fixed-rate, as opposed to adjustable-rate, mortgages. Since changes in interest rates also affect the likelihood that a borrower will prepay a mortgage, prepayment risk represents another aspect of the interest rate risk associated with mortgages. Credit risk refers to the risk that a borrower will not pay principal and interest promptly or will otherwise default on the loan.

[7] The payment characteristics of most REMICs are similar to a collateralized mortgage obligation (CMO) from an investor's viewpoint. A CMO is a mortgage-backed bond -- a debt instrument collateralized by a pool of mortgages -- that consists of different classes of certificates maturing at different dates. However, tax treatment favors the REMIC structure.

which fund their mortgage portfolios primarily by taking deposits, the two GSEs fund their portfolios by issuing an array of debt securities.

C. SUMMARY

Fannie Mae and Freddie Mac serve a public purpose: providing stability and liquidity to the secondary market for conforming home mortgage loans, including affordable housing loans. As secondary market institutions, Fannie Mae and Freddie Mac purchase conforming residential mortgage loans from banks, thrifts, mortgage banks, and other mortgage loan originators. The GSEs finance these purchases by securitizing groups of mortgages or by holding the mortgages in portfolios funded by issuing debt securities. Securitization involves pooling groups of mortgages and issuing securities backed by the pooled mortgages to investors. Mortgage-backed securities represent interests in the underlying mortgages, and use borrowers' monthly payments of interest and principal to pay the investors. The GSEs guarantee these payments and, in return, collect a guarantee fee. To help the GSEs pursue these activities while keeping within their public mission, government sponsorship confers a range of benefits and constraints, discussed in Chapter II.

CHAPTER II

GOVERNMENT SPONSORSHIP OF FANNIE MAE AND FREDDIE MAC

In establishing Fannie Mae and Freddie Mac, Congress imposed a set of constraints in their charters that limit them to certain business activities and keep them focused on housing.

Government sponsorship also includes a range of benefits to Fannie Mae and Freddie Mac that assist them in these efforts. These include exemption from costs that other financial institutions must bear, an ability to borrow at costs lower than other financial institutions, and the freedom to operate with less equity capital than a comparable fully private firm. These benefits are not reported in the federal budget because they do not take the form of direct payments to either GSE. Nonetheless, the benefits are extremely valuable. This chapter describes the benefits, and attempts to quantify them and to assess what portion of them the two GSEs pass through to consumers in the form of lower mortgage rates and what portion the GSEs' shareholders retain.

A. Benefits and Constraints of Government Sponsorship

Although they are federally chartered, Fannie Mae and Freddie Mac receive no funds from the federal government and the government does not guarantee their securities. However, government sponsorship does provide a set of benefits that would command a high price if offered to fully private firms. Thus, while the GSEs pose no direct budgetary cost to taxpayers, taxpayers provide the GSEs with benefits that have substantial value, an estimate of which is provided in Section B.

Government sponsorship also involves certain constraints -- most significantly, those limiting the firms' operations to the specific areas permitted by their charters. Thus, the GSEs forego the opportunity to invest their shareholders' capital in activities outside the boundaries of their charters.

1. Benefits of Government Sponsorship

Government sponsorship provides Fannie Mae and Freddie Mac with three types of benefits that help them fulfill their public mission. First, it lowers their operating costs and makes their securities more liquid and more attractive to investors. Second, it enables them to operate with relatively less capital than other market participants. Third, it enables their debt securities and mortgage-backed securities to receive preferential treatment in financial markets. These benefits help to support the GSEs' securitization and portfolio-holding activities.

The first set of benefits subsidizes the GSEs' operations by lowering their costs, which should increase the supply and stability of credit to the housing finance market. These benefits include among other things:

- exempting their debt securities and mortgage-backed securities (for simplicity, their securities) from registration with the Securities and Exchange Commission;
- exempting the GSEs from state and local corporate income taxes;
- authorizing the Secretary of the Treasury to purchase up to $2.25 billion of each GSE's obligations (and thus extend credit to the GSE);
- making their securities eligible as collateral for public deposits and for loans from Federal Reserve Banks and Federal Home Loan Banks;
- permitting national banks to make unlimited investments in those securities;
- making those securities lawful investments for federal fiduciary and public funds;
- authorizing the GSEs to issue and transfer securities through the book-entry system maintained by the Federal Reserve; and
- authorizing the Federal Reserve to buy and sell their securities in open market operations.

In addition, regulatory capital requirements for depository institutions create an incentive for those institutions to hold mortgage-backed securities rather than whole mortgages -- in effect giving them a financial incentive to sell in the secondary market the mortgages they originate. An excerpt from Freddie Mac's *Information Statement* makes this clear:

> Risk-based capital regulations adopted by the various federal bank and savings association regulatory agencies have become a significant factor in secondary mortgage market transactions, affecting both Freddie Mac's single-class and multiple-class securities programs. Among other things, these regulations assign lower credit risk weights to mortgage-related securities issued or guaranteed by Freddie Mac and the Federal National Mortgage Association ("Fannie Mae") than to the underlying mortgages themselves, thereby requiring regulated financial institutions to maintain higher levels of capital for a given quantity of portfolio mortgages than would be required for an equivalent quantity of mortgage-related securities. Consequently, banks and saving

associations have a financial incentive to sell and/or securitize mortgages rather than hold them as portfolio investments.[1]

Government sponsorship also enables the GSEs to operate with less capital than a comparable fully private firm, without incurring higher borrowing costs. How much capital such a firm would hold is speculative, because no fully private firm just like Fannie Mae and Freddie Mac exists. Depository institutions are currently the GSEs' principal competitors for portfolio funding of residential mortgages. The regulatory capital requirements for mortgages currently imposed on Fannie Mae and Freddie Mac are low relative to those imposed on FDIC-insured depository institutions. At the end of 1995, the two GSEs had an average capital-to-assets ratio of 3.9 percent. That ratio falls to 2.75 percent if one allocates capital, at the minimum rate currently required by the GSEs' safety and soundness regulator, to the $972 billion in mortgage-backed securities that the GSEs have guaranteed but do not carry on their balance sheets. By contrast, FDIC-insured savings institutions, with investments predominantly in mortgage-related assets, had an average capital-to-assets ratio of 7.8 percent. Although the differences may largely, or completely, reflect broad differences in the average credit and interest rate risk exposures of GSEs and depository institutions, the differences would provide a substantial competitive advantage to the GSEs even over depository institutions with essentially equal risks. Both depository institutions and the GSEs fund their mortgage portfolios using a mix of capital and debt, and capital is generally a more expensive funding source than debt. By having lower relative capital requirements than depository institutions, while simultaneously having an advantage in issuing debt as described below, the GSEs can finance a given mortgage or group of mortgages in their portfolio with less capital -- and hence at lower cost -- than can depository institutions.

The third type of benefit associated with GSE status is the preferential treatment that financial markets accord to debt and mortgage-backed securities issued by Fannie Mae and Freddie Mac relative to securities issued by potentially higher-capitalized, fully private, but otherwise comparable firms.

By law, all GSE-issued securities carry a disclaimer stating that securities are not guaranteed by, or otherwise an obligation of, the federal government. Yet the market prices for those securities, and the fact that the market does not require that those securities be rated by a national rating agency, suggest that investors believe the government implicitly guarantees those securities. This perception of an implicit guarantee -- growing out of the numerous ties between the GSEs and the federal government -- enables Fannie Mae and Freddie Mac (and

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[1] Federal Home Loan Mortgage Corporation (1993, p. 9).

the other GSEs) to borrow at near-Treasury rates -- rates below those paid by AAA-rated private firms.[2]

2. Constraints of Government Sponsorship

In exchange for the benefits of GSE status, the two GSEs' charters limit them to operating in the secondary mortgage market, and within that market to purchasing loans only up to a certain size. The maximum original principal amount of a mortgage they may purchase is set by formula.[3] Mortgages with original principal amounts equal to or less than the conforming loan limit are called conforming loans or conforming mortgages.[4] Over 90 percent of mortgages qualify for purchase under the limit.[5] At the end of 1995, total one-to-four family mortgage debt outstanding were about \$3.4 trillion, about \$2 trillion of which was in conventional, conforming fixed-rate mortgages, according to a GAO report (1996, p. 57) based on Freddie Mac estimates. At the end of 1995, Fannie Mae and Freddie Mac were financing about \$1.3 trillion in conforming mortgages. Thus, even operating within these limits, the two GSEs have become extremely large institutions.

Fannie Mae and Freddie Mac also face the following requirements not applicable to most private entities:

- The GSEs must meet a set of housing goals established by HUD to ensure that the GSEs' mortgage purchases include loans to targeted borrower groups and underserved areas. (Chapter III discusses these requirements in more detail.)

- The President, rather than shareholders, appoints some members of the GSEs' boards of directors.

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[2] National credit rating agencies employ various designations to denote the highest credit rating for private firms. For example, Standard and Poor's Corporation uses AAA and Moody's Investors Service Inc. uses Aaa. In the remainder of this study, AAA will denote the highest credit rating available to private firms.

[3] The formula limits increases in the conforming loan limit to increases in average home prices as measured by the Federal Housing Finance Board's survey of mortgage lenders. Several controversies exist regarding the conforming loan limit. The index used fell in 1993 and 1994 but the GSEs did not lower the conforming loan limit accordingly, arguing that the law stipulates only how the index should control increases in the conforming loan limit. When the index rose in 1995, both GSEs increased the conforming loan limit even though the increase in the index was less than the previous two years' decline. For more information on the process used to set the conforming loan limit, see U.S. General Accounting Office (1994).

[4] In 1996, the conforming loan limit for one-family mortgages is \$207,000, with higher limits in Alaska and Hawaii. The limits increase for two-, three-, and four-family mortgages. Limits also exist for multifamily mortgages.

[5] Canner and Passmore (1995-A) estimate that 7.5 percent of the number of single-family mortgage loans originated in 1994 exceeded the conforming loan limit.

- The Treasury Department has statutory authority to approve the GSEs' new debt issues, and has used this authority to coordinate new debt issues of the GSEs to prevent market congestion.

- The GSEs are subject to regulatory oversight and will be subject to risk-based capital requirements.

B. Estimating the Value of Government Sponsorship

The benefits that Fannie Mae and Freddie Mac receive from government sponsorship have real economic value, and thus provide an in-kind subsidy. The GSEs also pass through benefits of such sponsorship to the homebuying public in the form of lower mortgage interest rates. How do the benefits that the GSEs receive compare in value to the benefits they pass through to the public? Relying on the best data available to us, we present a conservative estimate of the most significant governmental benefits that the GSEs receive and an estimate of those they confer (lower interest rates on fixed-rate conforming, conventional single-family mortgages).

As estimated here, the gross value (that is, the value before considering any pass-through to homebuyers) includes the value of GSE benefits related to mortgage securitization, the retained mortgage portfolio, and reduced operating costs. From the gross value of these benefits, we subtract the estimated value passed on to homeowners to arrive at the net subsidy retained by the GSEs. These estimates reflect the value of GSE benefits based on the GSEs' current operations and do not imply that the GSEs' would operate in the same way they do today if Congress ended their government sponsorship. Nor do these estimates imply how a change in their government sponsorship would affect the GSEs' future operations or profitability.

1. Benefits Related to Securitizing Mortgages

Investors pay a premium (accept a lower yield -- effectively a lower interest rate) to purchase Fannie Mae and Freddie Mac mortgage-backed securities in comparison to securities with comparable asset-backing issued by non-GSEs (private conduits).[6] This advantage to the GSEs derives primarily from investors' perception that the government implicitly guarantees such securities even though no formal guarantee exists. An estimate of the value of the GSE benefits relating to mortgage-backed securitization should at least equal the extent to which investors are willing to accept lower yields because of that perception.

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[6] Hermalin and Jaffee (1996) provide a theoretical analysis of the premium investors are willing to pay for the GSEs' mortgage-backed securities.

Goodman and Passmore (1992, p. 5) found a yield difference of 45 to 60 basis points between the GSEs' mortgage-backed securities and AA-rated private mortgage-backed securities. Based in part on this result and other sources, CBO (1996) cited a range of 25 to 60 basis points as the GSEs' advantage in issuing mortgage-backed securities; CBO used 40 basis points as its baseline estimate of the advantage.

In discussions with OFHEO and market participants, we have attempted to obtain additional evidence on this issue. Several market participants told OFHEO officials that over the last three years the yields on the GSEs' mortgage-backed securities collateralized by 30-year fixed-rate loans have been 35 to 65 basis points lower than the yields on comparable privately issued mortgage-backed securities.[7] This spread reflects the prices of both the senior and subordinated pieces of the privately issued mortgage-backed securities.

Mortgage-backed securities issued by the GSEs have structures dissimilar to those issued by private conduits, which complicates interpretation of this yield difference. The two GSEs guarantee the principal and interest payments of their mortgage-backed securities and collect a fee for providing this credit enhancement. Private conduits, instead of charging a guarantee fee to credit-enhance a pool of mortgages, frequently rely on a structure that splits the mortgage-backed securities into senior and subordinated pieces. The senior piece typically obtains an AAA rating since the subordinated piece absorbs most of the risk in the mortgage pool. In return, the holders of the subordinated piece receive a higher yield as compensation for the higher risk, which in effect becomes the cost of the credit enhancement for privately issued mortgage-backed securities. Therefore, the 35 to 65 basis point range based on all senior and subordinated private-label pieces overstates the GSEs' advantage.

A market participant suggested that adjusting the 35 to 65 basis point yield spread to reflect the yield difference on senior securities alone would lower the range to between 13 and 46 basis points. This range underestimates the GSEs' advantage in issuing mortgage-backed securities, however, because the comparison assumes that the GSEs' corporate guarantees of their mortgage-backed securities are equivalent to the credit enhancement necessary to obtain an AAA rating. It seems unlikely that credit rating agencies would assign the highest investment-grade credit rating to mortgage-backed securities based solely on the credit enhancement provided by the corporate guarantees of fully private firms that had risk exposures and capital levels comparable to those of the GSEs.

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[7] According to OFHEO's sources, since 1992 the prices of GSE mortgage-backed securities have exceeded by 1.5 percent to 3 percent the prices of privately issued mortgage-backed securities backed by 30-year fixed-rate mortgages of credit quality comparable to loans securitized by the GSEs. This price differential reflects all senior and subordinated securities that comprise privately issued mortgage-backed securities. When appropriate assumptions about the different expected prepayment speeds of GSE and privately issued mortgage-backed securities are used to calculate yields to maturity, the price differences imply the yield spreads cited in the text.

Based on the 25 to 65 basis point range reported by CBO (1996), and the basis point ranges suggested by market participants, the analysis presented here assumes that Fannie Mae's and Freddie Mac's GSE status gives their mortgage-backed securities a 35 basis point yield advantage in the market.[8] This estimate is necessarily only approximate. A more precise estimate would require extensive gathering and analysis of market data on outstanding mortgage-backed securities. Even then, the inherent structural differences between GSE-issued mortgage-backed securities and privately issued mortgage-backed securities would continue to complicate such comparisons. And the size of the GSEs' advantage may change over time in response to changing market conditions and growing market acceptance of privately issued mortgage-backed securities.

2. Benefits Related to Retaining Mortgages in Portfolio

To finance their retained mortgage portfolios, Fannie Mae and Freddie Mac issue debt securities. Investors purchase these securities in the bond market at interest rates much lower than those paid by institutions with similar risks and more capital. The perception of an implicit guarantee makes them appear safer to investors, and some of their characteristics as GSE securities enhance their liquidity -- in essence lowering the GSEs' borrowing costs. One way to estimate these benefits is to compare the GSEs' borrowing costs to those of large high-quality financial firms with large portfolios of residential mortgages. Such firms (primarily large thrifts and commercial banks) are typically rated about A.

Using market price data reported by Bloomberg Financial Services, we examined yield spreads between the two GSEs' debt securities and similar securities of fully private, A-rated financial firms. Bloomberg adjusts its data for the specific characteristics of the bonds and

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[8] Fannie Mae criticized such estimates for exceeding the guarantee fee it charges customers. Yet the yield difference being measured here reflects the price advantage at which the GSEs sell their securities, not the guarantee fee they retain. The 35 basis points is also a gross subsidy, which does not consider any possible pass-through to homebuyers. The estimated net subsidy associated with securitization (described later in this section) is the 35 basis point estimated yield advantage minus the pass-through of GSE benefits in the form of reduced mortgage interest rates. Thus, based on the assumptions made here, if the GSEs lowered mortgage interest rates by 30 basis points, then the net subsidy retained by the GSEs in securitizing mortgages would be 5 basis points.

In comments provided to the Treasury, Freddie Mac stated that 30 basis points was a reasonable estimate of its funding advantage in issuing mortgage-backed securities, but unfairly measured its GSE benefits, since its securities also benefit from a liquidity advantage. Any liquidity premium accruing to the GSEs' mortgage-backed securities, however, reflects to some (probably large) degree, liquidity advantages derived from their GSE status.

reports average yield spreads for various maturity ranges.[9] Comparing yield differences on intermediate and long-term securities outstanding over the period from December 31, 1991, to April 30, 1996, Bloomberg reports the following average yield spreads: 53 basis points on two-year debt, 55 basis points on five-year debt, 52 basis points on ten-year debt, and 78 basis points on thirty-year debt. Since the GSEs are not heavy issuers of long-term debt, and since the five-year spread most closely approximates the average life of a mortgage, we used 55 basis points as the GSEs' funding advantage in issuing intermediate- and long-term debt to finance their retained mortgage portfolios. This estimate is consistent with White's (1996, p. 309) estimate that the GSEs' borrowing advantage amounts to between 55 and 60 basis points.[10]

For short-term debt securities, which may (among other things) finance short-term liquidity investments, we examined the difference between the yield on the GSEs' discount notes and the London interbank offered rate (LIBOR). Fannie Mae and Freddie Mac officials said LIBOR was an appropriate measure of banks' and thrifts' short-term funding costs. According to Bloomberg, this spread averaged 18 basis points for three-month notes over the period available (late 1992 to April 1996). Thus, we used 18 basis points as the baseline estimate for the GSEs' funding advantage on short-term debt.

These figures provide, at best, a rough estimate of the magnitude of the GSEs' advantage in issuing debt securities. Data for more careful comparison are not easily found. The GSEs have also pointed out that the yield spreads have declined in recent months. However, while these spreads are relatively low at the moment, they do vary over the course of the business cycle and have been much higher than the average spreads just reported. This issue deserves further research. A carefully constructed data set would permit a meaningful comparison of historical yield spreads and take proper account of the idiosyncratic features of the various securities being compared. To allow for this uncertainty, we also estimated a range for the GSEs' long-term and short-term borrowing advantage.

We used the same Bloomberg data to estimate a range for the GSEs' funding cost advantage, going from one standard deviation above to one standard deviation below the mean. For the yield spread on five-year debt, the mean was 55 basis points and the standard deviation

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[9] Bloomberg Financial Services reports the market value of bonds calculated using the Bloomberg Fair Value Model. According to Bloomberg, "Bloomberg Fair Value (BFV) is the model level or calculation that provides an indication of a bond's market value, based on the trading levels of other debt in its sector, as defined by issuer type and perceived credit quality. To account for embedded options BFV quantifies the value of any options and depending on option type, adds or subtracts them from the value, effectively allowing you to compare bonds with different structures on an equal basis. This model-predicted value is free of short-term supply and demand considerations."

[10] White based his estimate on the observation that the difference between GSE securities and corporate AAA debt is approximately 30 basis points, and that between AAA and A debt there is another 25-30 basis point spread.

was 19 basis points. Thus, the range for the GSEs' funding advantage in issuing five-year debt (our proxy for the GSEs' advantage in issuing intermediate and long-term debt) is estimated as 36 to 74 basis points. For short term debt, the mean yield spread was 18 basis points with one standard deviation of 15 basis points. Thus, the range for the GSEs' funding advantage in issuing short-term debt is estimated as 3 to 33 basis points.

The GSEs' advantages in issuing debt securities, as measured here, stem largely from the superior treatment their debt receives in financial markets, compared to the treatment that would be expected for the debt of fully private (and perhaps differently structured) firms, such as their current competitors in portfolio mortgage funding. The GSEs' competitive advantage is also reflected in the fact that they operate with relatively less capital than fully private firms that finance whole mortgages in their portfolio. In fact, whether measured using current regulatory capital requirements or actual capital levels, the GSEs operate with considerably less capital than do other private financial firms.[11] A company's debtholders look to the company's capital level and the relative riskiness of its activities in judging the risk of their investment. Other things being equal, a firm's borrowing costs are inversely related to its capital level.

GSE status attenuates this normal disciplining function of the marketplace, reducing the GSEs' borrowing costs without requiring commensurately higher levels of capital. Since capital is more costly than debt, operating with relatively less capital than private firms adds to the GSEs' competitive advantages in funding a portfolio of mortgages.

3. Benefits That Reduce the GSEs' Operating Costs

Several GSE benefits, such as the exemption from SEC registration, directly reduce Fannie Mae's and Freddie Mac's operating expenses relative to other firms. In addition, the GSEs' income is exempt from state and local income taxes. Although we did not attempt to identify and value every aspect of GSE status that may reduce the GSEs' operating costs, the SEC registration exemption and the state and local income tax exemption are the most significant. The GAO (1996-B, p. 7) estimated that in 1995 the state and local income tax exemption saved the GSEs a combined $367 million, and the SEC registration exemption saved the GSEs $102 million. Rounded off, the GSEs' combined operating cost subsidies totaled roughly $500 million last year. Among other things, this estimate does not include any operating-cost subsidies that may arise from use of the Federal Reserve's book-entry system. Nor does it include savings from issuing securities without obtaining private rating agency ratings.

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[11] See Stanton (1996, pp. 80-83) for comparisons between the GSEs and other financial firms, and between the GSEs and other major providers of mortgage credit.

4. Estimating the Gross and Net Value of Government Sponsorship

The cumulative value of GSE status to Fannie Mae and Freddie Mac may be estimated by combining the value of the benefits they receive in securitizing mortgages, funding mortgages in portfolio, and operating at lower costs. The GSEs' so-called gross subsidy measures these benefits before considering the extent to which the GSEs pass them on to homebuyers in the form of lower mortgage rates. The pre-tax net value of the benefits retained by the GSEs is the gross subsidy minus the projected reduction in mortgage rates resulting from the GSEs' operations.

Our analysis assumes that in 1995, government sponsorship gave the GSEs: (1) a 35 basis point advantage in securitizing mortgages; (2) a 55 basis point advantage in issuing intermediate- and long-term debt to fund their mortgage portfolio, and an 18 basis point advantage in issuing short-term debt for liquidity investments; and (3) a $500 million combined reduction in operating expenses. Other studies have suggested a funding advantage similar to or greater in magnitude to these estimates.[12]

Applying these figures to the GSEs' 1995 average balance sheet produces a $5.8 billion baseline estimate of the gross benefits that Fannie Mae and Freddie Mac derive from government sponsorship.[13] Applying the ranges for the GSEs' funding cost advantages described above, the estimated range for the combined gross benefits to the GSEs is $5 billion to $6.5 billion.[14]

To determine the net value of the GSE benefits retained by the GSEs' shareholders, we looked at studies of the extent to which the GSEs pass their governmental benefits through to borrowers by lowering interest rates on conforming, conventional fixed-rate mortgages. (Our review of the relevant research is described in more detail in Chapter IV.) Such a pass-through is inherently difficult to measure. Based on our review of several studies that

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[12] The estimates in this report are broadly consistent with the magnitudes estimated by the CBO (1996) and the GAO (1996-A).

[13] In 1995, the GSEs had outstanding, on average, approximately $960 billion in mortgage-backed securities and $384 billion in debt. To classify outstanding debt as short-, intermediate-, or long-term, we assumed that the GSEs funded their retained mortgage portfolio ($327 billion) with intermediate- and long-term debt, and that the remainder of the GSEs' outstanding debt ($57 billion) was short-term. OFHEO (1996-A) provides complete historical statistics.

[14] Unlike the estimates of the GSEs' mortgage funding advantage, the limited data on the GSEs' mortgage-backed security yield advantage do not permit calculation of a comparable range. Therefore, to illustrate the sensitivity of assuming that the GSEs had a 35 basis point advantage in securitizing mortgages, we calculated comparable ranges for the GSEs' combined gross benefits assuming their securitization advantage was 30 basis points and 40 basis points. With a 30 basis point advantage, the range becomes $4.6 billion to $6.0 billion. With a 40 basis point advantage, the range becomes $5.5 billion to $6.9 billion.

estimated interest-rate differentials between conforming and non-conforming, conventional mortgages, we assume that the GSEs reduce interest rates on conforming, conventional fixed-rate mortgages by roughly 20 to 40 basis points. (Not clear, however, is the degree to which this differential may result from such other factors as the GSEs' technical and managerial efficiency.)

Assuming that the GSEs do lower mortgage rates by 20 to 40 basis points by passing through benefits of government sponsorship, we took the midpoint of this pass-through range as our baseline. Under this assumption, the GSEs passed through $3.9 billion of pre-tax benefits and retained $1.9 billion before taxes in 1995.[15] The 20 to 40 basis point range produces an estimated range of benefits passed through to homebuyers of $2.6 billion to $5.1 billion.

Although estimates such as that presented above do give a general sense of the magnitude of the subsidies involved, no single point estimate should be viewed as a firm indicator of the benefits the GSEs receive or pass through. The calculations described above, for example, omit important elements of both benefits received and benefits passed through. The estimates do not place a value on the added stability the GSEs may give the conforming, conventional mortgage market. Nor do they place a value on the extent to which the GSEs may make affordable housing finance more available through consumer education activities, outreach efforts, and special products.

By the same token, the estimates do not include such other benefits to the GSEs as the use of the book-entry system maintained by the Federal Reserve or the ability to issue securities without obtaining private rating-agency ratings. The estimates also credit the GSEs for passing through lower rates on all the mortgages they purchase (including adjustable-rate mortgages and multifamily mortgages), not just on fixed-rate mortgages[16]. And the estimates do not include any additional competitive advantage that may result from government sponsorship.

Nevertheless, these estimates do provide a foundation for assessing how Fannie Mae and Freddie Mac work within the overall secondary mortgage market.

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[15] The GSEs' combined 1995 pre-tax net income (including Fannie Mae's special contribution to its foundation) was $4.9 billion.

[16] We estimate that for single-family mortgages originated in 1994, the GSEs financed 83 percent of the conforming, conventional fixed-rate mortgages and 17 percent of the conforming, conventional adjustable-rate mortgages. The fully private sector financed 17 percent of the fixed-rate and 83 percent of the adjustable-rate conforming, conventional mortgages originated that year.

C. The GSEs' Current Business Operations and Profitability

Although valuing the benefits of government sponsorship involves uncertainties, our estimates suggest that those benefits are substantial, a conclusion consistent with a basic review of the financial performance of Fannie Mae and Freddie Mac. In addition to enabling the GSEs to fulfill their public purpose, government sponsorship appears to shape their operations and opportunities in significant ways.

1. Mortgages Outstanding

Fannie Mae and Freddie Mac are two of the largest financial companies in the United States. Table II.1 shows each GSE's outstanding mortgage-backed securities and retained portfolio from 1989 through 1995. At the end of 1995, the two GSEs held some or all of the credit risk for more than $1.3 trillion in mortgages -- 34 percent of the $3.9 trillion in total outstanding residential mortgage debt in the country and 2.7 times the $491 billion of mortgages and mortgage-backed securities held by OTS-regulated savings associations. Furthermore, the $360 billion combined retained portfolio of Fannie Mae and Freddie Mac is just slightly less than the $365 billion of single-family mortgages held by all OTS-regulated savings associations.

Since 1989, the two GSEs have almost doubled their outstanding mortgage-backed securities and nearly tripled their retained portfolios. Much of this growth has occurred in recent years.

Table II.1: Mortgages Securitized and Retained in Portfolio by Fannie Mae and Freddie Mac, 1989 to 1995
(Dollars in billions)

	Fannie Mae			Freddie Mac			Combined		
	MBS[1]	Retained Portfolio	Total	MBS[1]	Retained Portfolio	Total	MBS[1]	Retained Portfolio	Total
1989	$217	$108	$324	$273	$21	$294	$490	$129	$618
1990	288	114	402	316	21	338	604	135	740
1991	355	126	482	359	27	386	714	153	868
1992	424	156	581	408	34	441	832	190	1,022
1993	471	190	661	439	56	495	910	246	1,156
1994	486	221	707	461	72	533	947	293	1,240
1995	513	253	766	459	107	566	972	360	1,332

Note: Totals may not add due to rounding.
Source: Fannie Mae and Freddie Mac Annual Reports and Investor/Analyst Reports

[1] Mortgage-backed securities (MBS) do not include those issued by the GSE but held in its own portfolio. The retained portfolio category includes those mortgage-backed securities retained by the GSE.

2. Sources of Income, and Growth of Retained Portfolio

The importance of the GSEs' retained portfolios is illustrated in Table II.2, which shows that net interest income accounted for more than two-thirds of Fannie Mae's total revenue in recent years. For Freddie Mac, net interest income increased from about 39 percent in 1992 to over 55 percent by 1995.[17] Fee income from guaranteeing mortgage-

[17] A better standard for gauging the importance of different business activities would be percent of net income by income source. Considering only total revenue by income source ignores the allocation of costs among various business activities. For example, managing the interest rate risk associated with the retained portfolio of Fannie Mae and Freddie Mac may require greater resources than managing the credit risk associated with the outstanding portfolio of mortgage-backed securities. Fannie Mae reports statistics similar to Table 2.2 based on net income by line of business. In 1995 (before special contributions to the Fannie Mae Foundation), portfolio investment made up 57.7 percent of net income, credit guarantees made up 40.8 percent, and fee-based services made up 1.4 percent. Freddie Mac only recently (first quarter of 1996) adopted reporting practices that allow calculations of the percent of net income by income source, and it told us that this information was not publicly available for previous time periods.

backed securities still makes up a substantial portion of total income but may diminish in importance if Fannie Mae and Freddie Mac pursue portfolio growth as the key to expanding profits. Other income, consisting primarily of REMIC fees, tends to fluctuate greatly from year to year in response to originations and investor demand for these products.

Table II.2: Fannie Mae and Freddie Mac Percentages of Total Revenue by Sources of Income (in percentage points)

	1995	1994	1993	1992
Fannie Mae				
Net Interest Income	72.2	69.7	67.5	67.3
Guarantee Fee Income	25.7	26.7	25.6	27.3
Other Fee Income	2.1	3.6	6.9	5.5
Freddie Mac				
Net Interest Income	55.6	48.6	40.4	38.9
Guarantee Fee Income	43.1	48.5	52.9	57.6
Other Fee Income	1.5	2.9	6.7	3.5

Source: Fannie Mae and Freddie Mac Investor/Analyst Reports

Table II.3 presents summary statistics that indicate the GSEs' increased focus on building their retained portfolio. For both Fannie Mae and Freddie Mac, the retained portfolio growth rate in recent years has exceeded the outstanding mortgage-backed securities growth rate. The growth in Freddie Mac's retained portfolio is especially marked. In 1995, that portfolio grew by 48.6 percent while outstanding mortgage-backed securities decreased. Since 1992, retained portfolio as a share of total mortgages acquired has continually increased for Fannie Mae and more than doubled for Freddie Mac.

Table II.3: Increased Focus on Retained Portfolio by Fannie Mae and Freddie Mac
(in percentage points)

	1995	1994	1993	1992
Fannie Mae				
Retained portfolio annual growth rate[1]	14.5	16.1	21.7	23.4
Outstanding mortgage-backed securities annual growth rate	5.5	3.2	11.0	19.5
Retained portfolio as a share of total mortgages acquired	33.0	31.2	28.7	26.9
Freddie Mac				
Retained portfolio annual growth rate [1]	48.6	28.7	66.3	26.3
Outstanding mortgage-backed securities annual growth rate	-0.003	4.9	7.7	13.5
Retained portfolio as a share of total mortgages acquired	19.0	13.6	11.3	7.6

Sources: Fannie Mae and Freddie Mac Fourth Quarter, 1995 Investor/Analyst Report and Annual Reports.

[1] Retained mortgage portfolio includes mortgage-backed securities and REMICs held in portfolio.

Why have Fannie Mae and Freddie Mac continually expanded their retained mortgage portfolios? There are at least two possible explanations. First, holding mortgages in portfolio may represent the optimal profit maximizing strategy for the GSEs based on current market conditions. As described earlier in this chapter, government sponsorship gives Fannie Mae and Freddie Mac significant advantages over other lenders that hold mortgages in portfolio.

Second, increasing their retained mortgage portfolios may better serve the GSEs' public purpose by enabling them to develop new products or provide enhanced stability to the mortgage market. However, new product development could be achieved with a much smaller retained mortgage portfolio.

The recent history of Freddie Mac suggests that the former explanation rather than the latter may better explain the growth in its retained mortgage portfolio. Before 1989, the thrift industry held Freddie Mac's stock and Freddie Mac securitized almost all the mortgages it purchased. By all accounts, Freddie Mac succeeded in accomplishing its mission of developing a liquid secondary market. Freddie Mac began to pursue an aggressive strategy of building its retained portfolio after Congress changed its corporate structure in 1989 to one resembling Fannie Mae's.

3. The Profitability of Fannie Mae and Freddie Mac

The special benefits of GSE status outlined earlier in this chapter have not only aided Fannie Mae and Freddie Mac in fulfilling their mission of developing a secondary market, but also helped them dominate certain sectors of the mortgage market, contributing to their profitability. Table II.4 compares the after-tax returns on equity for Fannie Mae, Freddie Mac, other financial firms, and the market return as measured by the S&P 500.[18] By this measure, Fannie Mae and Freddie Mac have outperformed much of the market. The comparison suggests that, if other market participants are earning normal profits, Fannie Mae and Freddie Mac are earning above-normal (i.e., economic) profits.[19] Hermalin and Jaffee (1996, pp. 250-253) discuss other measures of economic performance that support the conclusion that Fannie Mae and Freddie Mac earn above-normal market returns. One explanation for such added profits is the cumulative effect of the subsidies the enterprises receive from their government sponsorship. Another explanation is the efficiency of the two enterprises, perhaps aided by economies of scale in their operations.

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[18] It should be noted that the average return on equity for the S&P 500 in Table II.4 is pre-tax and the other measures are after-tax. Thus, if the S&P 500 measure were measured on an after-tax basis, the performance of Fannie Mae and Freddie Mac relative to the market would be even better.

[19] Higher returns to equity do not necessarily imply excess or economic profits if the business risks are greater. However, given that Fannie Mae and Freddie Mac have had relatively stable returns on equity and consistently lower credit losses than other mortgage lenders, and that their mortgage-backed securities and debt securities receive preferential regulatory treatment, it would seem implausible that the return on equity differentials from Table II.4 could be explained by risk.

Table II.4: Comparisons of After-Tax Return on Equity
(in percentage points)

	1995	1994	1993	1992	1991	1990
Fannie Mae	23.1[1]	24.3	25.3	26.5	27.7	33.9
Freddie Mac[2]	21.9	23.2	22.2	21.2	23.6	20.4
FDIC-Insured Commercial Banks	14.7	14.6	15.3	13.0	7.9	7.5
FDIC-Insured Savings Institutions	9.4	8.3	9.2	9.5	1.3	-6.7
S&P 500[3]	NA	19.3	14.6	12.6	10.3	14.2
S&P Financial Composite[3]	NA	NA	13.5	10.5	9.4	9.2

Source: Fannie Mae Annual Reports, Fannie Mae Investor/Analyst Report, Freddie Mac Annual Reports, Freddie Mac Investor/Analyst Report, FDIC Quarterly Banking Profile, and Standard and Poors (1995).

[1] The 1995 return on equity for Fannie Mae does not include the special $227.5 million after-tax contribution Fannie Mae made to the Fannie Mae Foundation. If this contribution were included, the 1995 return on equity would have been 20.9 percent.

[2] Freddie Mac's returns are on common equity.

[3] S&P returns are pre-tax and based on book values. S&P 500 returns for 1995 and S&P financial composite returns for 1995 and 1994 are not currently available.

D. Summary

Fannie Mae and Freddie Mac contribute liquidity to the secondary mortgage market through their two primary business activities: securitizing mortgages, and purchasing and funding mortgages for their own portfolios. The enterprises' government sponsorship provides specific benefits that lower their operating costs or make their securities more liquid or more attractive to investors. Investors accord their debt securities and mortgage-backed securities preferential treatment because of a perception that the federal government implicitly guarantees those securities, even though the securities specifically disclaim any government guarantee. The principal constraint on the GSEs is that their federal charters restrict their business operations to supporting the secondary mortgage market. And the GSEs must satisfy regulatory requirements that promote affordable housing.

Fannie Mae and Freddie Mac perform a valuable function in our nation's housing markets at no explicit budgetary cost to the taxpayers. The government benefits granted to the GSEs do, however, have a real, uncompensated opportunity cost. A baseline estimate suggests that these benefits amounted to almost $6 billion last year. Based on estimates that the GSEs lower mortgage interest rates on conforming, conventional fixed-rate mortgages by 20 to 40 basis points, the GSEs provided benefits to home buyers of $2.6 billion to $5.1 billion. A midpoint (baseline) estimate of the benefits provided to home buyers is about $4 billion. While no point estimate can avoid uncertainty in measuring governmental benefits received and public benefits conferred, estimates such as these convey a general order of magnitude for considering the value of the subsidies involved.

Despite constraining their business activities, GSE status has helped make Fannie Mae and Freddie Mac large and profitable. Together, at the end of 1995, their retained portfolio and outstanding mortgage-backed securities exceeded $1.3 trillion, which was 2.7 times more than the entire OTS-regulated thrift industry's holdings of mortgages and mortgage-backed securities. A comparison of the GSEs' profitability to other firms suggests that GSE benefits enabled Fannie Mae's and Freddie Mac's shareholders to earn increased profits.

CHAPTER III

THE GSES' PUBLIC PURPOSE

Traditionally, the government has established GSEs when it perceives the need to correct a specific market failure. For example, Congress created the Farm Credit System, a cooperative lending system, in 1916 to help make credit more available for farmers. Similarly, Fannie Mae was created in 1938 to help establish a secondary market for the new federally guaranteed home mortgage loans and to reinvigorate a housing finance market that the Great Depression had brought to the brink of collapse. However, both capital markets and financial institutions have changed dramatically since that time, making it appropriate for Congress to periodically evaluate whether and on what basis government sponsorship remains justified.

In this chapter, we consider two ways in which Fannie Mae and Freddie Mac advance public policy. The first is by participating in the secondary market for residential mortgages, the purpose for which Congress originally established them. The second is by carrying out the series of affordable housing initiatives directed by Congress in 1992. In each case, we compare the efforts of Fannie Mae and Freddie Mac with those of private financial institutions.

A. The Current Structure of the Housing Finance Market

Before we can assess the private market characteristics that may or may not make continued government sponsorship desirable, we need to review the current characteristics of the mortgage market.

We focus our research here and in the rest of the chapter on the single-family mortgage market because that is where Fannie Mae and Freddie Mac are most active. In 1994, the two GSEs purchased approximately 57 percent of single-family conforming, conventional mortgages, compared with only 14 percent of multifamily originations.[1] We recognize, however, that multifamily loans represent a relatively large share of the GSEs' affordable housing loans, which are described in more detail in Section B.[2]

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[1] Of the two GSEs, Fannie Mae is much more active in the multifamily market. Freddie Mac left the multifamily market in the early 1990s because of sustained losses, but has recently re-entered the market.

[2] HUD (1996-C) also comments on the limited role Fannie Mae and Freddie Mac currently play in financing multifamily housing. In addition, Wachter et. al. (1996, p. 366) conclude that concerns about multifamily finance should not be determinative in evaluating the merits of ending the two GSEs' government sponsorship.

Government involvement has helped create some clear dividing lines in today's mortgage market. Table III.1 shows the dollar value of single-family mortgage originations in 1994 for both conforming and non-conforming loans. The table also divides the conforming mortgage market into four segments: (1) the FHA/VA market (with the vast majority of these loans guaranteed by Ginnie Mae); (2) Fannie Mae purchases; (3) Freddie Mac purchases; and (4) loans not sold in the government-sponsored secondary market.

Table III.1: Distribution of Single-Family Mortgage Loan Originations, 1994
(Dollars in billions)

	Volume	Share
Conforming Loans[1]	$643.6	84%
FHA/VA	$143.1	19%
Fannie Mae Purchases	$162.5	21%
Freddie Mac Purchases	$123.4	16%
Loans not Sold in the Government Sponsored Secondary Market[2]	$214.6	28%
Non-conforming Loans[3]	$125.1	16%
Total	$768.7	100%

Source: HUD (1996-D) and *Mortgage Market Statistical Annual for 1995*.

[1] Conforming loans are defined as loans below the conforming loan limit of $203,150 in 1994.
[2] Conforming loans not sold in the government sponsored secondary market include adjustable rate mortgages, affordable housing mortgages, and B-C credit mortgages.
[3] The estimate for originations of non-conforming loans is obtained from *Inside Mortgage Finance*, assuming that non-conforming loans account for 20 percent of the conventional (non-FHA/VA) market. HUD (1995-B) reports a similar estimate of 19 percent for the share of non-conforming loans in the conventional market.

The Fannie Mae/Freddie Mac portion of the conforming loan market is commonly referred to as the A credit market. Conventional mortgages that do not meet the two GSEs' underwriting standards include certain affordable housing loans and the small but growing portion of the conventional mortgage market made up of B and C credit loans -- loans made to borrowers with credit history problems.

Loans not sold into the government-sponsored secondary market may be held in portfolio by financial institutions, securitized by private-sector secondary-market companies, or held by individuals or other investors. Financial institutions' portfolio holdings also include adjustable rate mortgages and mortgages that do not meet the two GSEs' underwriting standards.

B. System-Wide Imperfections in the Housing Finance Market

The financial system generally, and the housing finance system in particular, have undergone enormous change since the creation of Fannie Mae and Freddie Mac. Today's housing finance market does not suffer from the problems that prevailed thirty years ago.

Regulatory and statutory factors that contributed to inefficiency in this market are no longer an issue. In the early 1980s, the federal government phased out Regulation Q and permitted depository institutions to offer adjustable rate mortgages, which addressed the fundamental problem of funding long-term assets with short-term liabilities. In 1994, Congress repealed restrictions on interstate banking and branching that had long inhibited geographic diversification.

Mortgage securitization, which began with Ginnie Mae's creation of the first mortgage-backed security, has also made the mortgage market more liquid and linked it to the capital markets. Ginnie Mae, Fannie Mae, and Freddie Mac have each contributed to the growth of mortgage securitization. Fully private institutions have successfully replicated these efforts. Other segments of the mortgage market and the asset-backed security market demonstrate the ability of today's capital markets and private financial institutions to maintain liquid secondary markets without government support. In addition, the sheer size of the mortgage market, together with the participation of large national and regional firms, gives the market substantial stability.

1. The Capability of the Private Sector Secondary Market

One way to assess the private sector's ability to perform the secondary market function currently undertaken by Fannie Mae and Freddie Mac is to look at the development of other secondary mortgage markets and at overall trends in asset securitization. This helps provide a sense of the extent to which other financial markets have developed and the private sector's capacity to sustain a secondary market.

Today a wide array of financial assets -- from credit card receivables to aircraft leases -- are securitized without GSE or other government support. Financial institutions -- such as commercial banks, investment banks, private mortgage insurers, mortgage banks, and finance companies -- have worked together in developing these markets, which have grown dramatically over the past decade. These secondary markets share at least two common characteristics. First, somewhat uniform underwriting standards are necessary for rapid

market development, since individual assets (i.e., loans) must be combined into one security. Second, credit rating agencies must be able to evaluate the credit risk of the pool of assets underlying the publicly issued securities.

Secondary markets for jumbo/non-conforming and B-C (lower credit quality) mortgages are well developed. Table III.2 compares the securitization rates in the non-conforming market and the conventional, conforming market.[3] These two segments of the conventional secondary mortgage market have very different market structures. The conventional, conforming secondary market for A-credit mortgages, consisting of Fannie Mae and Freddie Mac, is what economists call a duopoly.[4] By contrast, during 1994 the jumbo/non-conforming market had 37 active corporate participants, 16 of which issued over $1 billion of private-label mortgage-backed securities. The three largest companies were GE Capital Mortgage Services ($10.5 billion issued), Prudential Home MSCI ($7.2 billion issued), and Countrywide/CWMBS ($5 billion issued).[5]

The annual securitization rates in Table III.2 (calculated by dividing the mortgage-backed securities issued by the estimated dollar value of mortgages originated in each market) provide an estimate of how much of the business volume the secondary market securitizes.

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[3] The jumbo/non-conforming market consists primarily of loans above the conforming loan limit but the available data may include a small proportion of loans below the conforming loan limit that do not meet the underwriting standards of Fannie Mae and Freddie Mac.

[4] See Hermalin and Jaffee (1996) for a technical description of how Fannie Mae and Freddie Mac constitute a duopoly in their market and the characteristics of various types of duopoly market structures.

[5] Complete historical statistics on the private label mortgage-backed securities market can be found in the *Mortgage Market Statistical Annual for 1995.*

Table III.2: Comparison of Mortgage-Backed Securities Issued and Securitization Rates for Conforming and Jumbo Mortgages[1]
(Dollars in billions)

	Non-FHA/VA Conforming Loans		Jumbo/Non-Conforming Loans[2]	
Year	MBS Issuance[3]	Securitization Rate	MBS Issuance[3]	Securitization Rate
1989	$142.6	47.2%	$14.2	15.7%
1990	$170.5	57.6%	$24.4	26.6%
1991	$205.4	53.0%	$39.8	35.4%
1992	$372.4	58.2%	$74.4	41.6%
1993	$430.2	62.6%	$97.3	48.2%
1994	$247.7	51.9%	$62.9	46.3%

Source: *Mortgage Market Statistical Annual for 1995* (pp. 161-62).

[1] Conventional (non FHA/VA) conforming originations and jumbo/non-conforming originations are estimated by Inside Mortgage Finance. The starting point is data from HUD on the dollar value of total originations, from which FHA/VA origination dollar volume is subtracted to obtain conventional originations. A 20 percent rule is applied to the dollar volume of conventional originations to calculate the dollar share of the jumbo/non-conforming market. This estimate was based on a 1990 National Association of Realtors Survey and has recently received support from HMDA data. HUD (1995-B) reports a similar estimate of 19 percent for the dollar share of non-conforming loans in conventional market originations.

[2] The jumbo/non-conforming private label issues of mortgage-backed securities include some conforming loans that do not meet the underwriting standards of Fannie Mae and Freddie Mac. Since this is a small portion of the market the 20 percent estimate for originations would not be changed substantially and the same general trend pattern would be evident.

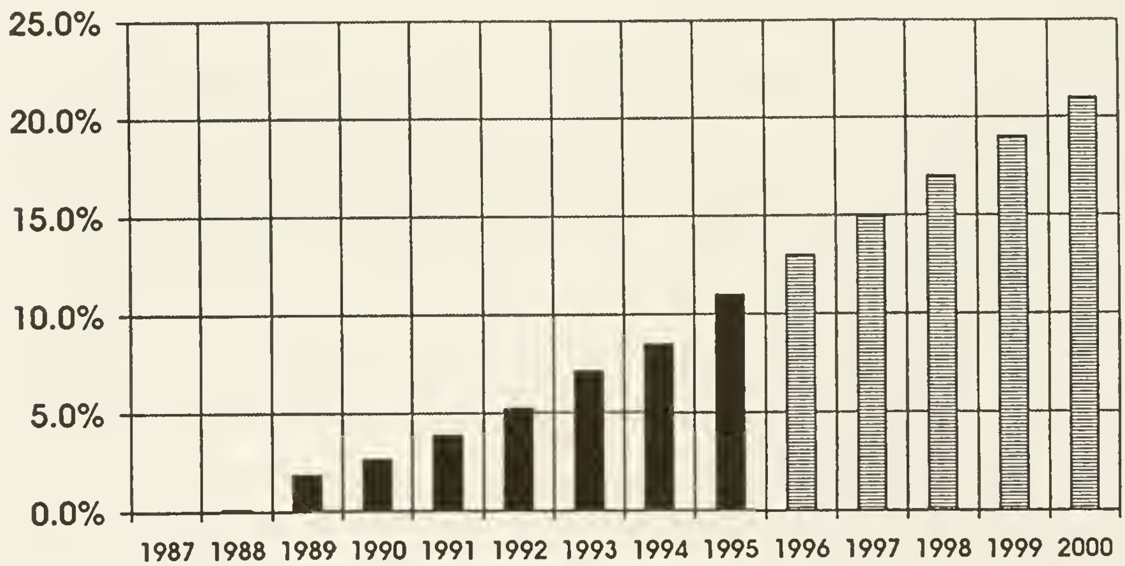
[3] Virtually all securitized conforming loans were securitized by the GSEs. Securitization rates do not include mortgages sold in the secondary market to the GSEs or another entity that were not pooled and resold as mortgage-backed securities.

The securitization rate for jumbo/non-conforming mortgages increased from approximately 15 percent of originations in 1989 to almost 50 percent by 1994. By contrast, the securitization rate for non-FHA/VA conforming loans varied between 47 percent and 62 percent during this period. The rapid growth of secondary market activity in the jumbo/non-conforming market reflects the private sector's growing ability to operate a liquid secondary

market. That such growth occurred while home prices were weak in the regions with the largest concentration of jumbo loans -- the Northeast and California -- suggests that the private secondary market can operate despite difficult economic circumstances.

Primary lenders searching for profitable market opportunities have increased originations of B-C loans made to higher risk borrowers -- most of whom have a history of significant credit problems -- spurring the development of a secondary market for these loans. Unlike jumbo mortgages, which Fannie Mae and Freddie Mac cannot legally purchase, B-C loans stretch underwriting criteria beyond the limits currently acceptable to Fannie Mae and Freddie Mac. (The GSEs' charters limit them to purchasing investment grade loans.) Figure III.1 presents estimates for securitization rates in the B-C market and projections through the year 2000. The B-C secondary market has grown from virtually nothing in 1988 to approximately 10 percent to 15 percent of B-C originations in 1995.[6]

Figure III.1: Share of Total Non-Conforming and B-C Credit Closed-End (Fixed Amortization Schedule) Mortgage Originations Securitized



Source: Historical data (1989-1995) are from Asset Sales Report (New York, New York). Projections from 1996 to 2000 are by David Olson Research (Columbia, Maryland).

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[6] Estimates of the securitization rate in the B-C credit market may vary by what is included in the B-C origination pool. *The Mortgage Market Statistical Annual for 1995* (p.350) reports a securitization rate of 14.9 percent in 1994.

Surveys by America's Community Bankers have also documented increased activity in the jumbo and B-C credit markets. Private secondary market organizations accounted for approximately 32 percent of the dollar volume of secondary market loan sales by thrifts in a 1994-95 survey, up from 28 percent in the 1993-94 survey and 17 percent in 1992-93. In 1994-95, private conduits bought 11 percent of the dollar volume of thrifts' originations sold in the secondary market, surpassing Freddie Mac (at about 10 percent), for the first time.

As indicated earlier, the private sector has recently also developed secondary markets in other financial instruments. Table III.3 compares the percentages of outstanding debt in the home mortgage market with that in other securitized financial markets. (A better measure would be the securitization rate as presented in Table III.2, but data on originations in some of these asset categories are not available.[7]) While the percentages of outstanding debt that have been securitized in other financial markets remain below that in the home mortgage market, they have grown rapidly since 1989. These other markets are still relatively young, and standardization of the underlying assets may never reach the degree of uniformity of certain other segments of the home mortgage market.

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[7] The securitization rate is a flow variable measuring the amount of originations that are transformed into another security in a given year. The percentage of outstanding debt that has been securitized measures the outstanding stock of asset-backed securities relative to outstanding stock of debt at a given time.

Table III.3: Share of Home Mortgage, Revolving Credit, Automobile, and Commercial Real Estate Debt Securitized
(Percentage of total debt outstanding)

	1989	1990	1991	1992	1993	1994	1995[2]
Home Mortgage Debt (1-4 Family)[1]	36.8	39.9	43.7	46.6	47.5	48.7	48.4
Revolving Credit	11.2	19.1	24.5	27.6	26.5	26.8	30.5
Automobile Credit	6.3	8.6	11.0	13.1	14.0	11.0	11.0
Commercial Real Estate	0.6	0.7	0.9	2.1	3.6	5.2	5.3

Source: Federal Reserve Board (1995-A), *Federal Reserve Bulletin* (various issues, Table 1.55)

[1] The calculation of outstanding MBS for this category is obtained by adding Flow of Funds outstanding levels for federally related home mortgage pools (Ginnie Mae, Fannie Mae, and Freddie Mac) to the private label issuance of MBS recorded in the Flow of Funds.
[2] Shares for 1995 are calculated through the end of the second quarter.

Securitization of commercial real estate loans, small business loans, and distressed assets has also become more common. Table III.3 shows that the percentage of outstanding securitized commercial real estate debt has increased from under 1 percent in 1989 to over 5 percent in 1995. Small business asset-backed securities are also being issued, although they still account for less than 1 percent of outstanding small business debt.[8] According to Fabozzi and Modigliani (1992, p. 312), asset-backed securities based on boat loans, recreational vehicle loans, computer leases, senior bank loans, and accounts receivable have also appeared in the market.

These rapidly growing secondary markets -- operating without government sponsorship -- are more competitive and involve loans with more diverse credit quality and borrower characteristics than the A-credit mortgages Fannie Mae and Freddie Mac purchase. Numerous firms of varying size vie for profitable business, with large market leaders like GE Capital, Countrywide, and Citicorp assuming prominent roles in the financial system and mortgage markets. The success of these markets suggests that Fannie Mae, Freddie Mac, and other firms may be able to adequately maintain liquid, regionally responsive secondary mortgage markets without government sponsorship.

[8] For details on the small business market, see Feldman (1995).

Given the characteristics of secondary markets operating without government sponsorship, what explains the lack of direct competition to Fannie Mae and Freddie Mac in the conventional, conforming secondary market? One possible explanation is that the competitive advantage of GSE status, described in Chapter II, inhibits competitors from entering this market: the premium investors are willing to pay for GSE securities and the cost advantages of government sponsorship may enable the GSEs to price below the level at which potential competitors find it profitable to enter the market.

Another possible explanation for the lack of direct competition to Fannie Mae and Freddie Mac involves possible economies of scale in their business operations, and an attendant cost structure low enough so that other firms do not find it profitable to enter the market. Economies of scale exist where average total costs (per unit) decline as output increases. But such economies seem an unlikely explanation here because other segments of the mortgage market do not have a highly concentrated market structure.

If, however, economies of scale did explain the lack of direct competition to Fannie Mae and Freddie Mac, ending government sponsorship need not affect their market share or mortgage rates. Even without such sponsorship, the two firms' favorable cost structure would probably enable them to compete effectively in the secondary market. Any economic benefits resulting from economies of scale that accrue to certain borrowers would continue, and borrowers in other segments of the market could also benefit if restrictions on other activities were lifted.[9]

2. Withstanding Tight Credit Markets

Another concern warranting attention is whether a secondary market without GSE support would excessively retreat from funding mortgages when credit is tight.[10] The overall size of the mortgage market, the number and size of national and regional participants in various aspects of that market, and the technical capability to link that market with the capital markets should mitigate this concern.

As illustrated by Table III.4, home mortgage debt outstanding falls only slightly short of outstanding publicly held U.S. Treasury securities. In 1995, the mortgage-backed securities market was: just under 50 percent of the size of the U.S. Treasury security market; almost 65 percent of the size of the private bond market; and considerably larger than the tax-exempt and

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[9] Any resulting market structure that has a small number of firms, even if this is the result of economies of scale, should be evaluated for possible anti-competitive issues.

[10] Some studies have questioned whether the GSEs have been able to exert a significant counter-cyclical impact. For example, Kaufman (1988) provides evidence that the counter-cyclical impact provided by Fannie Mae diminished in the eighties as a result of changes in the financial system and their operating procedures.

open market (commercial) paper markets. These other large financial markets suggest that government sponsorship is not necessary to promote active, liquid markets.

Table III.4: Size of Home Mortgage Market Relative to Other Financial Markets
(Billions of dollars of debt outstanding, year end)

	1989	1990	1991	1992	1993	1994	1995[2]
U.S. Treasury Securities (publicly held)	2227.0	2465.8	2757.8	3061.6	3309.9	3465.6	3556.7
Total Home Mortgage Debt (1-4 Family)	2407.8	2616.3	2780.0	2959.6	3149.6	3344.8	3431.8
Corporate and Foreign Bonds	1581.3	1695.8	1856.3	2026.4	2301.5	2438.4	2568.9
Securitized Home Mortgage Debt[1]	885.6	1043.7	1214.4	1380.2	1497.2	1628.9	1660.1
Tax Exempt Securities and Loans	991.2	1039.9	1108.6	1139.7	1215.2	1185.2	1164.6
Open Market Paper	579.2	609.9	565.9	579.0	580.0	623.5	673.8

Source: Federal Reserve Board. (1995-A).

[1] Securitized home mortgage debt is a subset of total mortgage debt. The calculation of securitized home mortgage debt (1-4 family) is obtained by adding Flow of Funds outstanding levels for federally related home mortgage pools (Ginnie Mae, Fannie Mae and Freddie Mac) to the private label issuance of MBS recorded in the Flow of Funds.
[2] Debt outstanding for 1995 is through the end of the second quarter.

The mortgage market derives stability not only from its large size but from the many national and regional mortgage originators, servicers, and insurers operating over broad geographical regions and devoting significant capital to market development. In 1994, eight companies exceeded $10 billion in origination volume, ten companies exceeded $50 billion in servicing volume, and six companies exceeded $10 billion in mortgage insurance volume.[11]

[11] The top eight mortgage originators in 1994 were Countrywide, Norwest, Prudential, Chase Manhattan, Chemical, Fleet, GE Capital, and GMAC. The top ten mortgage servicers in 1994 were Countrywide, GE Capital, Fleet, Prudential, Norwest, Chase Manhattan, GMAC, Chemical, Bank of America, and Home Savings of America. The top six private mortgage insurers in 1994 were GE Capital, Mortgage Guaranty Insurance Corporation, PMI Mortgage Insurance Company, United Guaranty Corporation, Republic

Having made the enormous commitments -- of capital, workforce development, and technological resources -- needed to compete in the residential mortgage market, firms with a primary business in that market are unlikely to abandon it when faced with cyclical downturns. While such cyclical fluctuations may deter marginal firms, those invested in the market for the long-term will seek to preserve or even build their market share.

3. Weathering Regional Economic Downturns

Another concern for policymakers is the mortgage market's ability to weather regional fluctuations. Fannie Mae and Freddie Mac often use the phrase "being in all markets at all times" to refer to their capability to provide liquidity to regional housing finance markets during regional economic downturns. Although the GSEs' charters do not establish any specific requirement to operate in all markets at all times, the charters do suggest a responsibility to maintain a nationwide presence.

In the past, technological and informational constraints, limits on interstate banking and branching by insured depository institutions, and other aspects of our financial system constrained mortgage credit flows across regions. Today, however, these problems have faded as regulatory and market changes have greatly enhanced credit flows. Investors, originators, and private mortgage insurance companies can now diversify regional risk in the secondary market.

By statute, OFHEO must prescribe a stress test that increases the amount of capital required for a given book of business as economic conditions worsen.[12] If the GSEs continue to operate at or near their regulatory minimum capital requirements, their ability to maintain or expand purchasing activity during a general or regional economic downturn could be limited.[13]

Similarly, while the GSEs may continually offer to purchase mortgages, even from distressed regions, their pricing may reflect risk differentials. Each GSE offers a "posted price" at which it will purchase any qualifying mortgage. However, the GSEs make the bulk of their mortgage purchases using negotiated prices, which are generally less than the posted

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Mortgage Insurance Company, and Commonwealth Mortgage Assurance Company. *The Mortgage Market Statistical Annual for 1995* contains complete details on market share rankings.

[12] The OFHEO stress test, by law, initially assumes that the GSEs take on no new business once the "stress period" begins [P.L. 102-550, Sec. 1361(a)(3)(A)]. Thus, it does not assume that the GSEs will continue to provide liquidity during a period of severe market stress. On the contrary, it assumes they will do no new business.

[13] "[OFHEO's] risk-based capital standard, which will be based on a stress test approach, will automatically respond to changes in either of the Enterprises' future risk profile. For example, if house prices fall, causing homeowners to have less equity in their properties and increasing the probability of their defaulting in the future, this will be immediately reflected in higher capital requirements." (OFHEO, 1996-B, p.4.)

price. Negotiated prices would presumably be adjusted to reflect changing risk characteristics of the underlying loans. Furthermore, any mortgage purchases made by a GSE in a distressed region or during an economic downturn must still satisfy the GSEs' underwriting standards. For example, mortgages with loan-to-value ratios exceeding 80 percent must have private mortgage insurance.

C. Affordable Housing Needs

How does the ability of Fannie Mae and Freddie Mac to finance affordable housing compare to that of other private market participants and existing government agencies? In the 1992 Act, Congress expanded the two GSEs' public purpose to include explicit requirements that the secondary mortgage market adequately serve underserved segments of the mortgage market, making affordable housing an additional topic for consideration when evaluating GSE status. The government has encouraged numerous initiatives to promote the flow of credit to underserved borrowers and communities and, as set forth in HUD's recent report, *The National Homeownership Strategy: Partners in the American Dream* (1995-A), an important government role in this mission still exists. Comparing the GSEs' achievements to certain affordable housing goals and the activities of other mortgage market participants provides insight into the value of GSE status to the public purpose of affordable housing.

1. The GSEs' Achievement of HUD's Affordable Housing Goals

One measure of the GSEs' contributions to affordable housing is their performance under affordable housing goals established by HUD.[14] Charged by Congress with ensuring that Fannie Mae and Freddie Mac meet their affordable housing requirements and the unmet needs of credit markets and underserved borrowers, HUD imposes housing goals based on the percentage of loans purchased from various types of targeted borrowers and communities.[15]

This housing goal framework can help expand the GSEs' participation in financing affordable housing and meeting other unmet credit needs. HUD has implemented the goals consistently and fairly. The goals have the following advantageous characteristics:

- The goals have a solid analytical and policy foundation.

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[14] In the following discussion, affordable housing goals refer to all three housing goals even though the old central city goal and the new underserved area goal are not based on borrower income.

[15] HUD was the primary regulator of Fannie Mae from 1968, and of Freddie Mac from 1989, until 1992, when Congress established OFHEO. HUD first issued affordable housing regulations for Fannie Mae in 1978.

- The goals are broad-based performance standards that are easily understood, provide appropriate flexibility, and do not seek to fine-tune the GSEs' activities or otherwise interfere with their daily operations.

- The goals can be used to target, to an important public purpose, the activities of the two dominant players in the conventional mortgage market.

- HUD set the goals to cover a four-year period, at levels attainable under varying economic conditions, including higher interest rates and less favorable market conditions than those prevailing in 1993-95.

- The goals represent reasonable benchmarks that the GSEs may exceed. They do not ratchet up or down based on annual changes in the GSEs' performance.

Table III.5 provides an overview of the goals and the GSEs' recent performance under the goals. In 1995, Fannie Mae satisfied all three interim housing goals, and Freddie Mac satisfied all but the central city goal. Fannie Mae's 1995 performance also exceeded all three of the goals that became effective in 1996, even at the fully phased-in levels that will apply in 1997 and 1998. Freddie Mac's 1995 performance would have satisfied two of the final 1996 goals, falling short (by less than a percentage point) only on the low- and moderate-income goal. The proportion of overall GSE activity meeting affordable housing goals has increased over the past few years, possibly due to the HUD goals and to CRA-driven increases in affordable housing lending generally and as a share of all mortgages originated.

Table III.5: Overview of the GSEs' Affordable Housing Goals and Performance[1]
(in percentage points)

Goal[2]	1993	1994	1995	1996 Goals	1997-1999 Goals	HUD's Market Size Estimate
Low- and Moderate Income						
Fannie Mae	34.1	45.1	42.8	40.0	42.0	48-52
Freddie Mac	30.0	38.0	39.6			
Geographic						
Fannie Mae	22.9	29.0	31.2	21.0	24.0	25-28
Freddie Mac	21.3	24.2	25.2			
Special Affordable						
Fannie Mae	10.0	16.7	15.8	12.0	14.0	20-23
Freddie Mac	7.2	11.4	13.2			

Source: HUD (1996-A, Table 3-2)

[1] Percentages of dwelling units in properties whose mortgages were purchased by the GSEs that qualified for each goal in 1992-1995, and goals for 1996-1999. Performance has been measured based on the structure of the goals for 1996-1999.
[2]Abbreviated definitions of the goals:

Low-Mod:	Households with incomes less than or equal to area median income (AMI).
Geographic:	Metro census tracts with median income less than or equal to 120 percent of AMI. County definitions are used in non-metropolitan areas.
Special Affordable:	Households with incomes less than or equal to 60 percent of AMI or less than or equal to 80 percent of AMI and located in low-income areas.

In evaluating this progress, it is important to consider the characteristics of the loans that count toward the goals.[16] For the most part, Fannie Mae and Freddie Mac met the central city housing goal by purchasing loans made to borrowers whose incomes exceeded the median MSA income. In 1994 (1995), for Fannie Mae, 55 percent (51 percent) of the loans purchased

[16] The following information on the characteristics of Fannie Mae's and Freddie Mac's loan purchases that satisfied the interim housing goals may be found in Fannie Mae (1996-A, 1995) and Freddie Mac (1996-A, 1995).

that counted toward satisfying the interim central city goal had borrower income greater than 100 percent of the median MSA income, and 42 percent (38 percent) had borrower income greater than 120 percent of the median MSA income. For Freddie Mac, 63 percent (59 percent) of the loans purchased that counted toward satisfying the interim central city goal in 1994 (1995) had borrower income greater than 100 percent, and 49 percent (46 percent) had borrower income greater than 120 percent of the median MSA income.

The majority of loans that counted toward meeting the interim affordable housing goals had loan-to-value (LTV) ratios less than or equal to 80 percent -- that is, mortgages made to borrowers who had made downpayments of at least 20 percent. In 1994, for Fannie Mae (Freddie Mac), loans with LTV ratios less than or equal to 80 percent made up 78 percent (79 percent) of loan purchases that counted toward meeting the low-moderate income goal, 71 percent (75 percent) that counted toward meeting the central city goal, and 73 percent (73 percent) that counted toward meeting the special affordable goal. In 1995, the corresponding percentages for Fannie Mae decreased to approximately 64 percent, while Freddie Mac's percentages remained about the same. The predominance of low LTV loans -- which have less credit risk than high LTV loans -- suggests that the private sector could finance the majority of Fannie Mae's and Freddie Mac's affordable housing business.

Beyond just meeting the HUD goals, the two GSEs have participated actively in expanding opportunities for affordable housing and in developing products and services to help meet the needs of low-income borrowers and communities. Fannie Mae, in particular, has made a clear commitment to provide educational materials and technical assistance to support the affordable housing activities of lenders. The GSEs have also increased their underwriting flexibility, improved homebuyer education programs, and entered into partnerships with local governments and non-profit organizations to provide additional affordable housing assistance. These secondary market developments may also reflect innovations by private mortgage insurance companies and other mortgage market participants.

The GSE housing goals, combined with recent changes in underwriting standards and new mortgage products for affordable housing, may lead the two GSEs to further increase their affordable housing activities and serve a broader proportion of the affordable housing market than they have in the past. The GSEs could also become more active in financing multifamily mortgages, and in directly assisting homebuyers through affordable housing programs. We cannot project how the GSEs' contributions to affordable housing may change in the future since the GSEs already meet almost all of the housing goals. The GSEs' contribution to affordable housing should receive close examination as Congress considers the costs and benefits of their government sponsorship.

Finally, another aspect of the 1992 legislation that also deserves examination in any evaluation of such sponsorship is the requirement that HUD oversee the GSEs' fair lending practices. While the GSEs would remain subject to the Fair Housing Act even without such sponsorship, the 1992 legislation authorized HUD to prescribe additional safeguards against

discriminatory lending practices. For example, HUD may review and comment on the GSEs' underwriting and appraisal guidelines, analyze the GSEs' business practices to ascertain whether those practices discriminate, and work with and through the GSEs to identify and remediate discriminatory practices by lenders.

2. Affordable Housing Achievements: The GSEs Relative to the Market

HUD's housing goals provide one measure of the GSEs' affordable housing performance. The relative share of the GSEs' mortgages that fund affordable housing compared to other mortgage market participants would be another way to assess the GSEs' role in mortgage lending for affordable housing. We evaluated the share of each secondary market participant's loan purchases that can be classified as affordable housing loans, and the distribution of affordable housing loans among all mortgage market participants.

As described in the last section, regulators generally promote affordable housing finance by targeting borrower groups considered underserved by the market based on household income, race, location, or some combination of these characteristics. Income targets generally involve some comparison of borrower income to median MSA income.[17] Geographic targets focus on the racial and income characteristics of various census tracts or on their classification as central city, urban, suburban, or rural. The remaining tables in this section use various categories of targeted borrowers that fit the typical definitions of underserved.

a. Share of Business from Targeted Borrower Groups

Table III.6 summarizes each secondary mortgage market participant's loan purchases from selected targeted borrower groups. The percentages in Table III.6 are averages of yearly shares.

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[17] Fannie Mae and Freddie Mac can satisfy the low- to moderate-income housing goal by purchasing loans with borrower income less than 100 percent of median MSA income. By contrast, for purposes of the Community Reinvestment Act (CRA) regulations recently established for FDIC-insured depository institutions, low- or moderate-income borrowers must have income that is less than 80 percent of median MSA income.

Table III.6: Percentage of Secondary Market Participants' Loan Purchases From Targeted Borrower Groups
(1991-94 averages of yearly shares, in percentage points)

	<100% of Median MSA Income	<80% of Median MSA Income	Black	Hispanic	Census Tracts >80% Minority	Low/Mod Income Census Tracts[1]
Ginnie Mae[2]	54.1	33.5	8.8	7.7	3.6	14.1
Farmers Home Admin.	48.7	31.9	4.2	4.9	3.2	14.1
Commercial Banks	38.6	23.9	6.4	4.6	3.4	10.8
Other Purchasers[3]	36.3	22.6	6.0	5.3	3.5	11.0
Life Insurance Companies	35.4	23.1	8.1	5.0	2.3	9.1
Savings and Loans	33.8	19.1	4.0	3.3	2.0	9.3
Fannie Mae	29.7	13.4	2.7	3.8	2.3	7.9
Affiliates[4]	29.4	16.4	4.1	2.9	1.9	8.3
Freddie Mac	29.2	13.1	2.1	3.9	2.2	8.0

Source: HMDA Data summarized in Federal Reserve Board (1995-B, Table 4.41, p. A74), Canner and Passmore (1995-A), Canner, Passmore and Smith (1994), and Canner and Smith (1992).

[1] Low- or moderate-income census tracts are those in which median family income is less than 80 percent of the median family income of the MSA as a whole.
[2] Ginnie Mae does not actually securitize or purchase mortgages; it guarantees the timely payment of principal and interest on mortgage-backed securities consisting of FHA and VA mortgages.
[3] Other purchasers include investment banks, private companies that securitize mortgages, and pension funds.
[4] Affiliates include companies affiliated with the institution reporting the loan.

Table III.6 illustrates Ginnie Mae's clear lead in relative purchases of mortgages made to targeted borrower categories. This lead is not surprising given that FHA/VA loans -- targeted at lower-income borrowers -- represent the sole collateral for Ginnie Mae-guaranteed

mortgage-backed securities.[18] Other secondary market participants generally make higher proportions of their loan purchases from targeted borrower groups than do Fannie Mae and Freddie Mac. For example, loans from borrowers earning less than 80 percent of median MSA income account for 33.5 percent of Ginnie Mae volume, but only 13.4 percent for Fannie Mae and 13.1 percent for Freddie Mac -- smaller percentages than those of each of the other secondary market participants. While analysis based on raw HMDA data has various limitations, it still provides a broad overview of relative market shares.[19]

An examination of lending activity broken down by credit risk also suggests that Fannie Mae and Freddie Mac do not provide a disproportionate share of credit to targeted borrower groups. Institutions that take on credit risk (i.e., the risk that a borrower will fail to make agreed-on payments) play a critical role in the mortgage lending process. When a mortgage bank originates an FHA-guaranteed loan, the FHA holds the credit risk; when a depository institution originates a conventional loan and holds the loan in portfolio, it holds the credit risk; when Fannie Mae purchases a conventional loan, it holds the credit risk.

A study of 1994 lending activity by Canner and Passmore (1995-A) identifies the entities bearing the credit risk in the overall mortgage market and in various subsections of the market.[20] The analysis in that study makes adjustments to incorporate private mortgage insurance companies. In keeping with their charters, Fannie Mae and Freddie Mac typically require such insurance on any mortgage with a loan-to-value ratio above 80 percent. Depository institutions also hold and purchase loans with private mortgage insurance. Thus, for loans with private mortgage insurance, the insurance company holds some of the risk, and other entities hold the rest.

Canner and Passmore (1995-A) split the mortgage market by loan size and borrower characteristic to estimate who holds the credit risk on mortgages made to targeted borrower groups. Table III.7 summarizes some of the results involving the relative share of targeted borrower loans in the mortgage-credit-risk portfolios of mortgage-market participants. The mortgage-credit-risk portfolio consists of all the mortgages for which a risk holder bears the credit risk. The summary in Table III.7 of loans falling within the FHA single-family loan

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[18] As noted previously, Ginnie Mae does not actually securitize or purchase mortgages but guarantees the timely payment of principal and interest on mortgage-backed securities made up of FHA and VA mortgages. In what follows in this study, the term securitize or purchase in relation to Ginnie Mae will refer to this guarantee function.

[19] Raw HMDA data as presented in Table III.6 include home purchase, refinancing, home improvement, and mobile home loans. The prevalence of these types of loans in a secondary market participant's purchases may affect targeted borrower purchase percentages. HMDA data also include only the initial sale of a mortgage in the secondary market.

[20] Specifically, Canner and Passmore (1995-A) analyze owner-occupied home purchase mortgages originated between January and October of 1994. Canner and Passmore perform various adjustments to address limitations associated with analyzing raw HMDA data.

limit -- mortgages less than $77,197 (ranging up to a maximum of $152,362 in designated high-cost areas) -- includes the vast majority of targeted borrower loans. Table III.7 indicates that 39.8 percent of all FHA-eligible loans originated in 1994 were made to lower-income borrowers, 15.9 percent were made to African-American or Hispanic borrowers, 14.5 percent to lower-income census tract borrowers, and 9.8 percent to minority census tract borrowers. The table also shows that 40.9 percent of the FHA-eligible loans (without private mortgage insurance) held in depository institutions' portfolios were to lower-income borrowers, while 35.5 percent of the FHA-eligible loans (without private mortgage insurance) purchased by Fannie Mae and Freddie Mac were to lower-income borrowers.

Table III.7: Relative Share of Targeted Borrower Loans in the Credit Risk Portfolios of Mortgage Market Participants, 1994 (FHA-eligible loan size category)
(in percentage points)

	Lower Income Borrowers[1]	African Amer. or Hispanic Borrowers	Lower Income Census Tracts[1]	Predominately Minority Census Tracts[1]
All	**39.8**	**15.9**	**14.5**	**9.8**
FHA Insured	45.1	25.7	17.8	13.3
VA Insured	40.3	19.6	14.0	9.1
Depository Inst. Portfolio Holdings[2]	40.9	11.6	15.5	8.8
Loan Purchaser[2]				
Fannie Mae or Freddie Mac	35.5	9.7	10.5	7.7
Depository Inst. not Affiliated with Mortgage Originator	34.9	8.8	10.7	7.1
Other Purchaser[3]	40.7	11.1	13.6	8.4
Affiliate from an Ind. Mortgage Company	42.5	13.5	13.2	9.3
Affiliate from a Depository Inst.	44.0	13.8	16.9	8.1

Source: Canner and Passmore (1995-A, Table 3, p.1000) calculated from 1994 HMDA data.

[1] Canner and Passmore define lower-income borrowers as having less than 80 percent of the median MSA income, lower-income census tracts as having a median family income of less than 80 percent of the MSA median family income, and predominately minority census tracts as having a minority population that is larger than 50 percent of the tract's total population.
[2] The relative shares for depository institution portfolio holdings and loan purchaser categories are for loans without private mortgage insurance. Relative shares for loans with private mortgage insurance are lower for these borrower categories.
[3] The other purchaser category in this table includes investment banks, life insurance companies, pension funds, and other private companies that securitize mortgages.

According to these figures, Fannie Mae and Freddie Mac have a lower relative share of loans to targeted borrower groups than do most of the other mortgage market participants. The relative lower-income market share of Fannie Mae and Freddie Mac (35.5 percent) is also below the overall lower-income market share (39.8 percent) for FHA-eligible loans, a pattern repeated in the other targeted borrower groups shown in Table III.6. Canner and Passmore

(1995-B, p. 1006) suggest that the difference between Fannie Mae and Freddie Mac and depository institutions in performance in targeted areas "may arise because Fannie Mae and Freddie Mac, unlike depositories, generally have no interactions with borrowers and are not located in the neighborhoods where the mortgages are originated; thus they lack the opportunity to look beyond traditional measures of risk." This conclusion is also suggested by the Federal Reserve Board (1993, p.4): "The additional information about the borrowers and neighborhoods gained by being directly involved with borrowers and located in a neighborhood may enable depository institutions to break the statistical links between neighborhood characteristics and loan performance."[21]

b. Share of Overall Market Serving Targeted Borrower Groups

The statistics just described indicate that Fannie Mae and Freddie Mac make a relatively smaller portion of their mortgage purchases from targeted borrowers or locations than do most other secondary market participants. The data also show that the two GSEs incur a relatively smaller amount of credit risk from lending to targeted borrower groups than do other mortgage market participants. Still these data only show that the two GSEs are not market leaders in the share of their business devoted to such targeted borrower groups. The data do not indicate how the GSEs' volume of loans to targeted borrower groups compares to that of other mortgage market participants; it is quite possible to have a high percentage of business in certain communities but an overall low volume of loans.[22] Also, considering only secondary market participants (as in Table III.6) ignores depository institutions that originate and hold mortgages in their own portfolio, which make up a significant portion of the market.

To analyze this issue, Canner and Passmore (1995-A) compare the overall market allocation of the credit risk associated with lending to targeted borrower groups. Since our analysis does not focus on the precise allocation of credit risk to private mortgage insurers, we allocate the portion of the credit risk held by the insurer to the partner entity. This calculation gives a sense of various institutions' direct participation in lending to targeted borrower groups. Table III.8 summarizes the Canner and Passmore results for FHA-eligible loans.

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[21] After doing a similar analysis, HUD (1995-C) concluded that non-GSE portfolio lenders (i.e., banks and thrifts) serve more credit-constrained borrowers than do the GSEs. "The apparent borrower differences ... may be due to the portfolio lenders' greater knowledge of local markets, to the portfolio lenders' flexibility in underwriting borrowers that they know to be good risks based on long-term customer relationships, and to the funding by non-GSE portfolio lenders of certain types of properties -- such as mobile homes -- which the GSE lenders will only fund under more restrictive conditions" (p. 4-3). This conclusion is also consistent with that of the Federal Reserve.

[22] For example in Table III.5 the Farmers Home Administration has a high share of targeted borrowers in its loan purchases but those purchases make up only a small percentage of total purchases from these groups.

Table III.8: Summary of the Overall Allocation of the Credit Risk Associated with Lending to Targeted Borrower Groups, 1994 (FHA-eligible loan size category)
(Percentage of the total number of loans in borrower categories)

	Lower Income Borrowers	Black or Hispanic Borrowers	Lower Income Census Tracts	Predominately Minority Census Tracts
FHA/VA Insured	34.3	47.8	36.3	38.9
Depository Institutions[1]	33.0	25.0	33.9	28.8
Fannie Mae and Freddie Mac[2]	21.1	17.0	18.5	20.4
Other Secondary Market Purchasers[3]	8.1	6.0	7.4	7.0
Independent Mortgage Companies[4]	3.6	4.1	3.8	4.9

Source: Canner and Passmore (1995-A, Table 4, p. 1004)
Note: Columns may not add exactly to 100 percent because of rounding.

[1] The market share for depository institutions is obtained by adding depository institutions' holdings (with and without private mortgage insurance, or PMI), purchases by a bank or savings association not affiliated with a mortgage originator (with and without PMI), and purchases by an affiliate from a depository institution or its subsidiary (with and without PMI).
[2] The market share for Fannie Mae and Freddie Mac is obtained by adding their purchases with and without PMI.
[3] The market share for other secondary market purchasers is obtained by adding their purchases with and without PMI. This category includes investment banks, life insurance companies, pension funds and other private companies that securitize mortgages.
[4] The market share for independent mortgage companies is obtained by adding independent mortgage company holdings (with and without PMI), and purchases by an affiliate from an independent mortgage company (with and without PMI).

In the FHA-eligible loan size category, FHA and VA hold the largest share of credit risk and depository institutions have the second largest share. In fact, FHA, and VA, and depository institutions bear well over 60 percent of the credit risk for FHA-eligible loans to all categories of targeted borrowers. Combined, Fannie Mae and Freddie Mac hold about 20 percent of the credit risk for each targeted group.

Depository institutions' portfolio holdings appear to contribute significantly to affordable housing lending, a conclusion further supported by a 1995 Consumer Bankers Association survey, which was described in Elmendorf and Brough (1995). The survey reports that although 50 percent of the responding institutions sold some of their affordable

housing loans into the secondary market, the institutions retained an average of 77 percent in their own portfolios.[23]

In sum, a number of measures indicate that Fannie Mae and Freddie Mac finance a smaller portion of loans to targeted borrowers than do FHA and VA, and insured depository institutions. This result is consistent with HUD (1995-C) data comparing the GSEs' affordable housing activities with FHA and other lenders. Table III.9 shows these comparisons across income, race/ethnicity, and location for home purchase mortgages guaranteed by FHA or acquired by the GSEs in 1993. Because Congress designed FHA specifically to support the affordable housing segment of the market, it is not surprising to find that FHA serves relatively more low-income and other targeted borrowers than do the GSEs, which provide general liquidity to a broad spectrum of the market.

[23] Affordable housing loans for the purpose of the Consumer Bankers Association survey were defined as loans made through a program designed to increase purchase-money home mortgage lending to minority or low- to moderate-income applicants. The Consumer Bankers Association has conducted its survey, known as the *Affordable Mortgage Program Survey*, annually since 1992.

Table III.9: Distribution of Borrower and Census Tract Characteristics of FHA and GSE Home Purchase Mortgages in Metropolitan Areas, 1993
(in percentage points)

Borrower and Census Tract Characteristics	FHA	GSE	
		All	Eligible-Only
Income of Borrower			
80 % of Median or Below	42.0	18.3	28.0
81-100 % of Median	23.0	15.3	20.9
101-120 % of Median	16.0	15.7	17.6
121-150 % of Median	11.8	19.3	16.6
+150 % of Median	7.2	31.4	16.8
Under Median	65.0	33.6	48.9
Over Median	35.2	66.4	51.0
First-time Homebuyer	66.8	30.7	35.0
Repeat Homebuyer	33.2	69.3	65.0
Race/Ethnicity of Borrower			
White	78.1	87.6	86.9
Black	10.0	2.7	3.0
Hispanic	9.5	4.2	4.8
Asian	2.0	4.3	4.1
Other	0.4	1.2	1.2
*Income of Tract			
80 % of Median or Below	16.1	6.7	8.8
81-100 % of Median	29.7	18.3	22.9
101-120 % of Median	29.9	27.7	30.6
121-150 % of Median	19.0	29.0	26.0
+150 % of Median	5.3	18.3	11.7
*Minority Composition of Tract			
10 % Minority or Less	43.1	57.3	56.4
11-30 % Minority	34.8	30.5	30.1
31-50 % Minority	10.3	6.5	6.8
+50 % Minority	11.8	5.7	6.7
Underserved Areas	27.1	12.7	15.5
Served Areas	72.9	87.3	84.5

Source: *An Analysis of FHA's Single-Family Insurance Program.* (HUD, 1995-C, pp. 4-26).

D. Summary

Over the last 30 years, the secondary mortgage market has developed rapidly, assisted by the federal government's support for Fannie Mae, Freddie Mac, and Ginnie Mae. Both Fannie Mae and Freddie Mac have been instrumental in developing new products that increased the availability of mortgage credit under various economic circumstances.

Since the late 1980s the non-conforming mortgage market and other financial markets have successfully replicated the GSEs' function of linking capital markets to individual credit markets. These non-GSE secondary markets demonstrate private firms' ability to keep secondary markets liquid without government support. In addition, the sheer size of the mortgage market, together with the participation of large national and regional firms, provides considerable stability to the market. These developments suggest that the secondary market for conforming, conventional mortgages could operate efficiently and effectively were Congress to end government sponsorship of Fannie Mae and Freddie Mac. Nevertheless, as explained in the next chapter, a number of important uncertainties remain.

That chapter also considers the uncertainties concerning the GSEs' contributions to affordable housing. While both Fannie Mae and Freddie Mac participate actively in expanding opportunities for affordable housing, other market participants appear to be the leaders in providing credit to targeted borrowers. Despite the best efforts of Fannie Mae and Freddie Mac, the fact that those companies operate in the secondary market for mortgage loans issued under relatively conservative underwriting guidelines may put them at a disadvantage in actively promoting affordable housing loans. They may also lack the advantages that have helped depository institutions succeed in this area: direct participation in primary markets, local knowledge, and greater outreach in low-income communities because of CRA.

Without government sponsorship, the GSEs would have fewer incentives to continue serving various affordable housing markets. In addition, revitalized CRA regulations for FDIC-insured depository institutions that have stimulated affordable housing finance may, over the long run, stimulate more affordable housing activity by the GSEs and other market participants. On the other hand, rescinding the affordable housing goals (or similar obligations) attendant on GSE status would reduce the incentives for Fannie Mae and Freddie Mac to purchase at least some affordable housing loans, particularly those with higher LTV ratios or higher information and transaction costs. It could also limit certain other forms of assistance currently provided. Even if the GSEs lost their government sponsorship and reduced their affordable housing activity, the characteristics of their affordable housing loans suggest that the private sector could readily finance most of these loans. Chapter IV considers this from a broader perspective.

CHAPTER IV

POTENTIAL EFFECTS OF ENDING GOVERNMENT SPONSORSHIP AND OF MAINTAINING THE *STATUS QUO*

Without government sponsorship, Fannie Mae and Freddie Mac would probably continue to compete and prosper in the secondary mortgage market, and that market would probably retain the liquidity and regional stability it now displays. Yet the broader potential effects of ending such sponsorship remain uncertain. Nor can one know exactly how the mortgage market would evolve if such sponsorship continues. What is certain is that U.S. financial markets, and the housing finance market in particular, are undergoing dramatic changes, many of them driven by advances in technology. While such changes can create troubling uncertainties, they should ultimately benefit consumers and the economy. Mindful of such changes, we attempt to evaluate some of the broad economic and social effects of ending or retaining government sponsorship of Fannie Mae and Freddie Mac.

A. Risks of Ending Government Sponsorship

We will consider here how ending government sponsorship could introduce uncertainty into the mortgage market, increase mortgage costs, and reduce affordable housing efforts. Fannie Mae and Freddie Mac have played a central role in developing the efficient, liquid mortgage market we enjoy today. They have developed it so successfully that some have asked whether the market could operate effectively without government sponsorship. The two GSEs, in meetings with Treasury officials, have stated that they could restructure themselves to operate without government sponsorship, but that losing such sponsorship would raise mortgage costs.

1. Effect on the Liquidity and Stability of the Mortgage Market

Despite the strength of the secondary mortgage market, precipitous change in the GSEs' government sponsorship could pose potential risks for that market. Government sponsorship enables the GSEs' debt and mortgage-backed securities to receive better than AAA rates. A secondary market without GSE support would need to find other sources of credit enhancement to raise similar sums. The private sector has successfully provided such credit enhancements in other segments of the home mortgage market and in other markets but, given the large volume of securities issued by Fannie Mae and Freddie Mac, ending government sponsorship may at least cause some initial uncertainty.

In response to changing market conditions and the search for more efficient structures, private asset-backed securities markets have greatly increased their capacity to provide credit enhancement. They have developed structures ranging from pool insurance to the currently

more common division of debt into senior and subordinated instruments. Some private companies specialize in providing credit enhancement to municipal bond issuers. In the long run, one would expect financial markets to develop the capacity to provide the level of credit enhancement necessary to accommodate the GSEs' volume of securities. Interest rates on such securities might still rise without government sponsorship, but the market could remain liquid and stable.

In the short run, the private market may have greater difficulty in providing the level of credit enhancement necessary to absorb the GSEs' current volume of securities without an increase in interest rates. This would certainly be the case if government sponsorship of Fannie Mae and Freddie Mac ended abruptly. Given the GSEs' current importance to the mortgage market, an abrupt end to government sponsorship would not be a prudent policy choice.

Furthermore, any changes in government sponsorship need not be made in isolation. Policymakers could consider changing other statutes and regulations to improve the liquidity and stability of a fully private secondary mortgage market. Congress already took one such step with the Secondary Mortgage Market Enhancement Act of 1984. The Act preempted certain state investment laws, thereby allowing depository institutions and institutional investors such as pension funds to purchase privately issued mortgage-backed securities as if they were issued by a federal agency or a GSE. Federal banking regulators might consider re-examining the risk-based capital treatment of privately issued mortgage-backed securities, which have a 50 percent risk-weight versus the 20 percent risk-weight assigned to GSE-issued mortgage-backed securities.[1]

2. Effect on Mortgage Interest Rates

Another concern is a potential increase in home mortgage rates for conforming, conventional fixed-rate loans. It is difficult to estimate with certainty how modifying or ending government sponsorship would affect mortgage interest rates. It appears that if federal sponsorship were ended, mortgage rates in this segment of the market would rise, though the effect is both hard to estimate and likely to be small relative to the normal fluctuations in mortgage rates attributable to macroeconomic and credit market factors.

There is no theoretical or legal reason why the GSEs must pass through all, or even part, of their subsidies to consumers. Hermalin and Jaffee (1996) explain how duopolists can increase their profits through tacit cooperation.[2] They point out that reducing subsidies may

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[1] The OTS uses a 20 percent risk-weight for both GSE and privately issued mortgage-backed securities.

[2] As Hermalin and Jaffee point out, tacit cooperation requires no actual collusion. Rather, it is possible for duopolists, acting independently and solely in their own individual interests, to act *as if* they were colluding.

not increase mortgage rates if the GSEs priced just low enough such that other competitors stay out of the market. In general, the GSEs' pricing strategy, and the threat of competitor entry into the conforming loan secondary market, will determine whether and how much of the subsidy is passed through in lower mortgage rates and, in turn, how any reduction in subsidies would affect conforming mortgage rates.

Empirical evidence of the GSEs' effect on conforming loan rates is also inconclusive. The GSEs point to comparisons of mortgage offer rates in weekly newspapers as evidence of a pass-through. A review of such rates in the weekly *Washington Post* real estate section shows that lenders' quote on conforming rates generally running 25 to 50 basis points below their quotes on jumbo rates, although the difference recently diminished.

One concern about this comparison is that offer rates can and do differ from the rates at which loans are actually closed. Table IV.1 presents national averages on closed fixed-rate mortgages for both conforming and non-conforming loans.[3]

Table IV.1: National Averages on Fixed-Rate Mortgages

Year	Conforming Effective Rate (percent)	Jumbo Effective Rate (percent)	Jumbo Differential (basis points)
1983	12.86	12.4	-46
1990	10.38	10.56	18
1991	9.66	9.75	9
1992	8.49	8.6	11
1993	7.48	7.46	-2
1994	8.19	7.78	-41
1995	8.18	8.16	-2

Sources: Mortgage Interest Rate Survey (MIRS) conducted by the Federal Housing Finance Board (Federal Home Loan Bank Board prior to 1989). 1983 estimates, from GAO (1984), include both fixed- and adjustable-rate mortgages.

[3] The effective rate adjusts the contract rate for initial fees. MIRS data amortize the initial fees over a ten year time period to obtain the effective rate.

The GAO (1984) first reported that the 1983 national average rate of jumbo loans was less than that of conforming loans. During the 1990s, the differential on national averages between conforming and jumbo loans has varied in size and sign. For the three-year period 1993-95, however, jumbo loans bore lower average effective rates than conforming loans.

Relying on national averages of closed rates to analyze the GSEs' effect on the interest rates of mortgages below the conforming loan limit also has shortcomings. Simple averages of mortgage rates across time cannot fully capture factors that could cause mortgage rates to vary according to loan characteristics such as loan size or credit quality. In addition, annual national averages do not account for such factors as any regional differences in mortgage rates or the timing of mortgage closures.

Several research papers, including one prepared for the interagency group (Cotterman and Pearce, 1996),[4] use econometric models to control for various factors that may affect the mortgage-rate differential between conforming and jumbo loans, such as geographic location, time of loan closing, loan size, and default risk. By controlling for such factors, an econometric model attempts to isolate the GSEs' effect on conforming mortgage rates. The Cotterman and Pearce paper, which builds on earlier work, estimates that closed conforming fixed-rate mortgages have had interest rates roughly 25 basis points (in 1993) to 60 basis points (in 1989) below the rates on jumbo mortgages. Of this range, Cotterman and Pearce view the core range of the differential as 25 to 40 basis points. A sample of their estimates is presented in Table IV.2. The Cotterman and Pearce estimates are similar to those found by other researchers. For example, ICF (1990) found that conforming loans had interest rates 23 basis points less than jumbo loans. Hendershott and Shilling (1989) found a 30 basis point differential.[5] Fannie Mae (1996-C, p. 218), in written comments on a preliminary draft of Cotterman and Pearce, identified a 20 to 35 basis point differential as reasonable and consistent with earlier findings using similar data.[6] Therefore, in Chapter II we assumed 20 to 40 basis points as a reasonable range for the possible pass-through of the GSEs' governmental benefits.

Table IV.2 also shows that the differential declined in recent years. This decline corresponds with the rapid growth of securitization in the jumbo market. These researchers also found that stacking -- i.e., the concentration of a large number of mortgages -- at the

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[4] See also Hendershott and Shilling (1989) and ICF (1990). Shilling (1996) and Cook (1996) comment on Cotterman and Pearce. Hermalin and Jaffee (1996) also offer insights into this issue, as do comments on their paper from White (1996) and Kaufman (1996).

[5] Both Hendershott and Shilling (1989), and ICF (1990), reported smaller differentials for jumbo loans that were close to the conforming loan limit. For the time period covered by these studies, this effect was particularly important since the conforming loan limit was increasing regularly.

[6] Cotterman and Pearce (1996), in a preliminary draft of their paper, concluded that the conforming loan differential had a core range of 20 to 35 basis points.

conforming loan limit declined during the same period. Although the Cotterman and Pearce results are the best econometric evidence currently available, they involve a relatively simple model,[7,8] and include no data after 1993. Given the rapid fall in the conforming loan differential that they estimate between 1989 and 1993, an update of their analysis would be particularly useful.

Table IV.2: Estimated Differences in Rates Between Jumbo Loans and Conforming Loans By Lender, 1989-1993
(in percentage points)

	California			Total for 11 States		
Year	S&Ls	Mortgage Companies	S&Ls and Mortgage Companies	S&Ls	Mortgage Companies	S&Ls and Mortgage Companies
1989	-0.45	-0.51	-0.50	-0.31	-0.59	-0.59
1990	-0.34	-0.35	-0.36	-0.35	-0.36	-0.38
1991	-0.48	-0.46	-0.47	-0.33	-0.49	-0.43
1992	-0.17	-0.38	-0.32	-0.21	-0.30	-0.30
1993	-0.19	-0.28	-0.25	-0.28	-0.23	-0.24

Source: Cotterman and Pearce (1996, p. 125, Table 6)

In the face of conflicting data on offer rates and closed rates, theoretical uncertainty over how much the GSEs pass through their benefits by lowering mortgage rates, and the problems associated with estimating the effects of government sponsorship, we cannot make definitive statements about the degree to which reducing or eliminating government sponsorship would affect conforming mortgage rates. Further study is needed to estimate more precisely the GSEs' effects on mortgage rates below the conforming loan limit.

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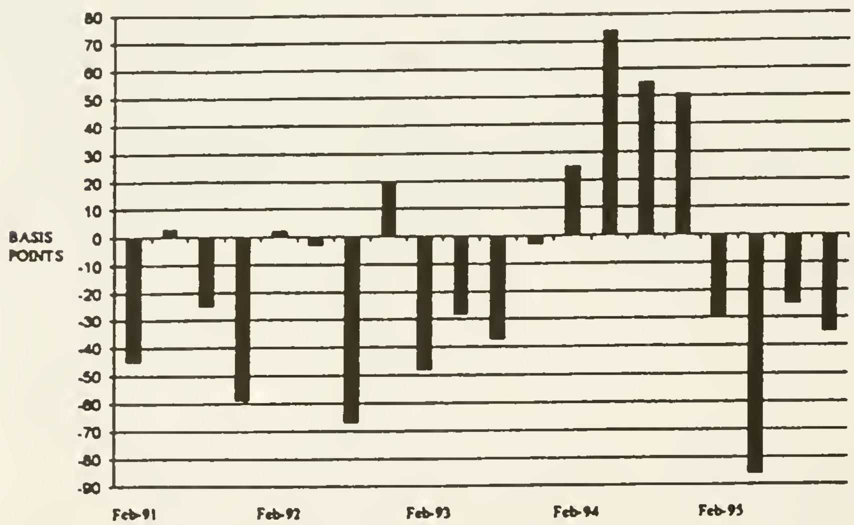
[7] No doubt due to data limitations, the Cotterman and Pearce model includes information on relatively few of the variables that should affect loan rates. A more complete analysis would also model the joint determination of loan approval or disapproval, amount, and interest rate.

[8] The relationship between loan rate and loan size appears particularly complex, both theoretically and empirically. Consequently, a simple measure or estimate of the difference between conforming and jumbo mortgage rates masks a more complicated relationship between mortgage rates and mortgage size.

The information currently available indicates that the potential increase in mortgage rates would be small relative to the normal fluctuations in mortgage rates attributable to changes in macroeconomic and credit market conditions. Figure IV.1 shows quarter-to-quarter changes in average mortgage rates between 1991 and 1995. As the figure indicates, mortgage rates regularly change by considerably more than any change that could reasonably be expected from ending government sponsorship. To provide a benchmark for assessing the effect of a rise in mortgage interest rates, consider the following example. The median-priced home in the U.S. in 1995 was $112,900 and the average mortgage rate on a 30-year, fixed-rate mortgage was 7.95 percent.[9] Assuming the homebuyer made a 20 percent downpayment, a 20 basis-point increase in mortgage rates would increase the monthly payment by $12 per month. Assuming the homebuyer is in the 28 percent marginal tax bracket and pays state taxes at a marginal rate of 5 percent (net of the federal deduction), the after-tax cost of a 20 basis point increase would be $8 per month.

Figure IV.1: Quarterly Changes in Average Mortgage Rates



Source: HUD (1996-D)

In summary, it is not clear to what extent interest rates for fixed-rate conforming, conventional mortgages would increase if Congress ended the government's sponsorship of Fannie Mae and Freddie Mac, although such rates probably would rise. To the extent that

[9] See HUD (1996-D).

observed differences in rates between conforming and jumbo mortgages reflect economic factors such as credit risk, or technical efficiencies achieved by the GSEs, ending such sponsorship may have almost no effect on mortgage rates. But to the extent that lower conforming mortgage rates reflect a current pass-through of at least some of the GSEs' governmental subsidies, as we assumed in Chapter II, then ending such sponsorship could lead to a slight increase in mortgage rates. If ending the GSEs' government sponsorship increased secondary mortgage market competition, however, that could in the long-run mitigate or even offset any such rate increase.

3. Effect on Affordable Housing Efforts

Congress has created a role for the GSEs in affordable housing, to which they have responded by substantially increasing their purchases of loans to lower-income homebuyers and on properties in under-served communities. Of course, the GSEs' affordable housing goals are only one of a set of government initiatives to promote affordable housing. The Community Reinvestment Act (CRA), for example, increases the incentives for primary lenders to make affordable housing loans.

While predicting future contributions by the GSEs and others to affordable housing is difficult, it may help to consider the challenges that the GSEs face relative to other participants in the affordable housing market. First, the GSEs do not make loans directly to homebuyers. Although they can offer products designed for affordable housing, they must rely on primary lenders to bring them such loans. Also, the GSEs have a number of active competitors in the affordable housing market, including the FHA, which focuses directly and primarily on affordable housing, and portfolio lenders, which have the advantage of better local knowledge.

The challenges faced by the GSEs are heightened by the fact that today's critical housing priorities center not on the general operation of the nation's credit markets but on the needs of certain borrowers that continue to find homeownership beyond their grasp. Last year, the Administration established the goal of increasing the U.S. homeownership rate to a historic high -- 67 percent of all households. HUD released a blueprint for achieving this goal, the *National Homeownership Strategy: Partners in the American Dream.*[10] The strategy includes 100 action items for increasing homeownership rates nationwide. It also identifies a lack of funds for downpayments and insufficient income -- not credit availability -- as the two main financial barriers to homeownership among the targeted borrower groups. As the *National Strategy* report points out, "obtaining sufficient funds to purchase a home for many low- and moderate-income households will require government and nonprofit financial support" (HUD, 1995, p. 4-11). For the country to meet today's critical housing needs, public policy attention should focus on the action items outlined in the HUD strategy. Again,

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[10] HUD (1995). At the end of 1992, the national homeownership rate was 64.1 percent. By the end of 1995, the rate had increased to 65.1 percent.

the GSEs face challenges in helping to solve this problem. For the GSEs to buy a mortgage, they must first obtain mortgage originations that meet their underwriting standards (recognizing that the GSEs have recently modified some of their underwriting standards to boost their purchase of affordable housing loans). Also, for most affordable housing loans, a private mortgage insurance company must take the first-loss risk before the GSEs may purchase the loans.[11]

Despite these challenges, Fannie Mae and Freddie Mac have contributed to promoting affordable housing finance. It is unclear whether the two companies need government sponsorship to continue their current efforts; knowing that would require more information on whether the GSEs' affordable housing efforts generate returns significantly below those of comparable lines of business. As described in the previous chapter, the majority of affordable housing loans purchased by the GSEs meet standard underwriting criteria. Freddie Mac states that "the corporation purchases most single-family and multifamily mortgages in support of affordable housing through its standard mortgage purchase programs and under the same credit standards as its other mortgage purchases" (Freddie Mac, 1996-B, p. 4), but this statement does not preclude some extraordinary efforts aimed at small groups of homebuyers.

Therefore, ending government sponsorship would leave at risk some smaller subset of the GSEs' purchases of affordable housing loans. This subset, typically referred to as community lending loans, consists of loans that target various groups of borrowers through flexible underwriting (lower debt or income ratios, and reduced down payments). HUD (1996-A) has reported that the GSEs purchased some 97,000 such loans, worth a total of $7.5 billion, in 1995. Community lending comprised 7 percent of Fannie Mae's total owner-occupied single-family purchases and 1 percent of Freddie Mac's.[12]

Another area of concern is how ending the GSEs' government sponsorship would affect homeownership opportunities. A study by Wachter et. al. (1996) predicts that it would reduce the overall homeownership rate, especially among first-time homebuyers and targeted borrower groups. These results must, however, be kept in perspective. In particular, the Wachter analysis could overstate the effects of ending government sponsorship for several reasons, some of which are presented below.[13] The Wachter analysis did not consider the ability of households to use adjustable-rate mortgages and assumed that ending government sponsorship would cause:

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[11] One promising development that may lower the cost of buying a home for all potential homebuyers is new technology that reduces the cost of originating and underwriting mortgages. Fannie Mae and Freddie Mac are actively involved in developing such technology, as are fully private firms.

[12] HUD (1996-A) reports that in 1995 the community lending purchases of Fannie Mae were 86,374 ($6.550 billion) and Freddie Mac's were 10,869 ($935 million).

[13] Yezer (1996) also discusses issues related to the Wachter et. al. (1996) analysis.

- Downpayment requirements to increase. This may not be a likely occurrence, however, since the fully private sector offers low downpayment mortgages enhanced through private mortgage insurance companies.

- A 50 basis point increase in mortgage rates. Such an increase exceeds those suggested by other research cited earlier in the chapter. Even if rates rose that much, it is unclear it could have such a broad effect on homeownership.

Although Wachter et. al. (1996) raise many important questions about ending government sponsorship and about overall housing policy, more research is necessary to determine the effect on homeownership rates.

The federal government has in place a specialized system for insuring and securitizing affordable housing loans -- FHA and Ginnie Mae. It also recently established the Community Development Financial Institutions (CDFI) fund to leverage public and private capital for community development activities including affordable housing projects. These government entities may be best equipped to target subsidies to specific borrower groups. Their current and future activities need to be considered when evaluating the effect that ending government sponsorship of Fannie Mae and Freddie Mac might have on the government's ability to achieve the goals laid out in the *National Homeownership Strategy.*

B. Risks of Maintaining the *Status Quo*

Just as government sponsorship has real value and involves real costs, maintaining such sponsorship would involve risks that may benefit from further analysis. As described here, these risks include the effect of government sponsorship on Treasury borrowing costs, on other credit markets, on competition in the mortgage market and increased reliance on GSEs, and on the potential risk to the taxpayers. They also include the tension between the GSEs' public purpose and their responsibility to their shareholders.

1. Effect on Treasury Borrowing Costs

In addition to the implicit subsidies covered earlier in this report, government sponsorship may involve an explicit cost through increased Treasury borrowing costs. The large number of variables that affect financial markets make it difficult to ascertain to what extent GSE securities affect Treasury borrowing costs. However, the ways in which such securities could affect those costs are clear. First, if the GSEs increase the total demand for credit above what it would have been without government sponsorship, then the law of demand suggests that the GSEs must be raising all interest rates, including those for Treasury securities. While the GSEs issue a large volume of securities, any net additional demand for credit created by their government sponsorship is probably fairly small.

Second, since GSE securities serve as substitutes for Treasury securities for many purposes, and since they benefit from investors' perception that the federal government implicitly stands behind them, those securities compete directly with Treasury securities in the government securities market. To some extent, therefore, the considerable and growing supply of GSE securities (relative to the supply of Treasury securities) tends to lower prices in the government securities market and thereby increase the Treasury's borrowing costs.

Unfortunately, it is extremely difficult to estimate the amount of the increase. Financial markets are both dynamic and complex; many factors affect their demand, supply, and segmentation. When the Treasury previously attempted (Treasury 1990, 1991) to estimate the effect of GSE borrowing on Treasury costs, it could not quantify those effects. These estimation difficulties remain; nonetheless, further analysis seems appropriate. Together, Fannie Mae and Freddie Mac had over $1.4 trillion in debt and mortgage-backed securities outstanding at the end of 1995. Since the public holds $3.7 trillion of U.S. government debt, each basis point of increase in such costs would raise annual budgetary outlays by $370 million.

2. Effect on Other Credit Markets

While the benefits of GSE status provide an important subsidy that promotes homeownership, such a subsidy has economic costs. To the extent that the GSEs pass through the benefits of government sponsorship, they reduce the price of, and increase the demand for, mortgage credit relative to other types of credit. The economic effect of the subsidy to mortgage credit -- absent increases in the savings pool or attracting capital from abroad -- is to raise the price or reduce the amount of credit for other uses, such as small businesses, exporters, rural communities, and other business and consumer borrowers. Measuring such effects, however, is even more difficult than measuring the potential effects on Treasury borrowing costs.

3. Potential for Increased Reliance on the GSEs

Maintaining the current GSE status of Fannie Mae and Freddie Mac could, over time, find the housing finance market increasingly reliant on the GSEs as sources of credit for conforming, conventional mortgages. This increased reliance, coupled with the advantages the GSEs receive from government sponsorship, could undermine the viability of portfolio lenders operating in local markets, such as community banks and thrift institutions. If that were to occur, borrowers who do not easily meet the GSEs' underwriting standards may lose competitive local mortgage sources that may serve their needs better than national lenders.

Fannie Mae and Freddie Mac face *potential* competition from private-sector conduits now active in the secondary mortgage markets not dominated by Fannie Mae and Freddie Mac. One reason these firms do not now compete with the GSEs is that the benefits of government sponsorship deter entry into the market for fixed-rate conforming, conventional

mortgages. Ending government sponsorship would encourage more private sector participation in the market for such mortgages. Increased competition would probably not eliminate the benefits Fannie Mae and Freddie Mac have already brought to this market, such as standardization of loan terms. On the other hand, continuing government sponsorship prevents Fannie Mae and Freddie Mac from competing in other lines of business; free to bring their considerable skills to bear in other markets, they would likely benefit consumers in these other markets.

The potential for competition in GSE-dominated markets is evident in the evolution of REMIC[14] securities. The private sector rapidly began issuing REMIC securities soon after the Tax Reform Act of 1986 authorized them. In 1987, fully private issuers accounted for almost all issuance of REMICs. Once the two GSEs were permitted to fully participate in this market, they became the leading REMIC issuers. In 1993, the GSEs issued approximately 98 percent of all REMICs.[15] If this concentration resulted from the GSEs' economies of scale, better technology, or some other form of superior economic efficiency, then privatization would probably not alter it. However, if it resulted from the benefits of government sponsorship, including a perceived implicit guarantee, privatization probably would increase competition.

The limited competition faced by Fannie Mae and Freddie Mac — and the lack of direct secondary market competition — may distort resource allocation and decrease financial innovation. By removing the subsidies derived from their government sponsorship, privatization would enable Fannie Mae, Freddie Mac, private conduits, and depository institutions to compete more equitably in financing home mortgages.

4. Effect on Potential Risk to the Taxpayer

Although Fannie Mae and Freddie Mac have developed a range of mechanisms to hedge the risks of their portfolios and protect their financial integrity against movements in the financial markets, there is no guarantee they will always be safe and sound entities. We have no evidence of any current safety and soundness problems at Fannie Mae and Freddie Mac.

The Shadow Financial Regulatory Committee recently highlighted questions regarding potential taxpayer risk:

> Whether or not a GSE actually becomes insolvent, taxpayers need to recognize that Treasury back-up implicitly supplies risk capital that enhances the value of private stakes in the firm. The availability of the implicit finance allows

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[14] See footnote 8 in Chapter I for a definition of REMIC.

[15] *Mortgage Market Statistical Annual for 1995.*

> enterprise managers to escape the market discipline of making other arrangements to support their creditworthiness and promises to keep alive for GSE shareholders a claim on the enterprise's future profits in difficult times. This distorted arrangement for sharing risk makes private stakeholders willing to trade upside earning potential for downside risks at terms that disadvantage taxpayers.[16]

Because one cannot know in advance whether, or to what extent, the government would assist a financially troubled or failing GSE, managing any potential risk exposure is necessarily more difficult than managing the risks of an explicit guarantee. When making an explicit guarantee, the government can clearly define and limit its obligations, and other parties can adjust their conduct accordingly. The government can also take specific steps to minimize the risk of any claim against that guarantee -- for example, by regulating an entity whose obligations are being guaranteed.

When there is no explicit guarantee, but merely a possibility that the government might provide assistance in the future, the nature and scope of any such assistance is unknown. Efforts to manage an undefined potential risk are problematic.

In 1992, Congress sought to assure the safety and soundness of Fannie Mae and Freddie Mac, and thus reduce any potential taxpayer risk, by establishing the Office of Federal Housing Enterprise Oversight (OFHEO), an independent office within HUD. Congress charged OFHEO with assessing and maintaining the safety and soundness of the GSEs. OFHEO's regulatory duties include conducting examinations and establishing capital standards. It has the enforcement powers needed to respond quickly if problems arise. While still a new office, OFHEO's ongoing work in examining the two GSEs and developing risk-based capital requirements for them do help bolster the GSEs' safety and soundness, thereby making taxpayers better off. Creation of OFHEO is a positive development that we expect to have a salutary effect on the two GSEs' safety and soundness.

OFHEO's responsibilities are unusual because it regulates only two entities -- entities that comprise almost the entire secondary mortgage market for conforming, conventional mortgages. This concentration of regulatory scope has both advantages and disadvantages. OFHEO's structure provides a clear, focused safety and soundness mission, and strong accountability. Having only two institutions to regulate, OFHEO should be expert in the GSEs' operations and risks. On the other hand, that structure may also present challenges in the future. Since OFHEO oversees only Fannie Mae and Freddie Mac, it must continue to work diligently to retain an appropriate arm's-length independence from its regulated entities over time. In light of its relatively narrow mission, OFHEO will also need to maintain a

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[16] Shadow Financial Regulatory Committee (1996, p. 2).

vision of the housing finance system and the operations of financial markets that does not become narrowed by its exclusive focus on two GSEs.

If Congress were to end the GSEs' government sponsorship, we assume it would do so in a way that would remove any question of implicit taxpayer support and would thus make clear that investors bear the risks associated with the two companies' operations, just as they bear the risks of other fully private firms. Congress could then end safety and soundness regulation and subject Fannie Mae and Freddie Mac to full market discipline.

5. The Tension Between Profit and Public Purpose

When creating a GSE, Congress defines the problem (i.e., the market imperfection) it seeks to overcome, provides benefits (subsidies), and imposes limitations on the GSE. But if Congress wishes to revise those decisions in response to changing public needs, it no longer has the same freedom of action: in addition to the usual constraints of the legislative process, it must contend with the private interests of the GSE and its shareholders. Congress must consider, and legislate, any such changes through a process in which the GSEs are significant participants. As a private company, the GSE will act to fulfill its fiduciary responsibilities by promoting and protecting the interests of its shareholders.

Clearly Fannie Mae and Freddie Mac must serve their shareholders, but they must also comply with their federal charters. This ambiguity of responsibility, characteristic of GSEs, continually raises issues of accountability: To what extent is a particular GSE responding to its federal mandate and to what extent to the need to generate returns for its stockholders? What tradeoffs does it make between these objectives?

C. Balancing the GSEs' Public Purpose and the Benefits of Government Sponsorship

If Congress decided to maintain the GSE status of Fannie Mae and Freddie Mac, but sought to increase the public benefits they provide or reduce the government benefits they receive, it could pursue a wide range of options.

Illustrative of the many options that have been suggested are the following:

- Holding constant, or decreasing, the conforming loan limit to focus the GSEs more squarely on the market where affordability issues are most important;
- Strengthening the affordable housing goals;
- Requiring Fannie Mae and Freddie Mac to direct a portion of their earnings to affordable housing, perhaps along the lines of the Federal Home Loan Bank System's Affordable Housing Program (the System, another housing GSE, must annually make

grants for affordable housing that amount to the greater of $100 million or 10 percent of the System's earnings).

- Requiring more directed assistance (both educational and financial) to lower-income borrowers, state and local governments, and non-profit organizations, as described in HUD's National Homeownership Strategy;

- Charging user fees to recoup some of the benefits of government sponsorship;

- Limiting the size of the GSEs' retained mortgage portfolio or requiring its divestiture (as Congress directed in 1954); and

- Ending certain benefits of government sponsorship, such as the exemption from SEC registration.

Analysis of any of these options would be a necessary part of the ongoing evaluation of the government's relationship with the GSEs in light of market developments. Also, policymakers would need to consider how such options would affect the GSEs and other government housing programs, especially FHA. Gradually decreasing the conforming loan limit (currently $207,000) could encourage the GSEs to increase their activity in the segment of the housing market most in need of assistance. Strengthening the affordable housing goals could also focus more of the GSEs' efforts on targeted borrowers. The goals recently published by HUD are actually below the relevant market shares for targeted borrower groups. The percentages could be increased or the definitions further tightened to try to better serve the public purpose. In addition, the goals could also place greater emphasis on increasing the GSEs' involvement in financing multifamily mortgages.

Alternatively, one could require the GSEs to provide direct financial and technical assistance to institutions and government agencies involved in affordable housing. Both GSEs provide such assistance to various community organizations, but to better target public benefits the government could have input on the level and scope of these activities.[17]

Imposing user fees on the GSEs' debt and mortgage-backed securities could recoup some of the GSEs' implicit government subsidy and level the playing field for other

[17] For example, the Fannie Mae Foundation provides charitable support for various housing initiatives and other projects. Fannie Mae officials expect the Foundation to spend between $50 and $70 million annually in the next five to seven years. By contrast, the Federal Home Loan Bank System must devote the greater of $100 million or 10 percent of net income to its statutorily defined Affordable Housing Program. If a similar 10 percent requirement had been applied to Fannie Mae and Freddie Mac in 1995, it would have raised $300 million (based on $3 billion in after-tax net income) to $450 million (based on approximately $4.5 billion in pre-tax net income).

competitors.[18] Such fees could, however, create pay-as-you-go budget problems for any future legislation to end government sponsorship.[19]

Limiting the GSEs' retained mortgage portfolios (and thus requiring the GSEs to securitize more of the mortgages they purchase) would substantially reduce the benefits of government sponsorship retained by the GSEs' shareholders and would greatly reduce their interest-rate risk exposure.

Repealing some of the other benefits of government sponsorship, such as the exemption from SEC registration, could also encourage competition from private firms and provide a slightly better balance between the benefits received by the GSEs and the benefits passed on to the housing finance market.

It should be stressed that none of these suggestions has received the detailed analysis that would be required before a decision can be made on whether or how to adjust government sponsorship.

D. Summary

The GSEs have made extraordinary contributions in pursuing their public goals. Congress has asked whether it is now feasible and desirable to alter or eliminate government sponsorship of Fannie Mae and Freddie Mac.

There seems little doubt that securitization and the secondary mortgage activities pioneered by Ginnie Mae, Fannie Mae, and Freddie Mac are now well-established and that the secondary market for conforming, conventional mortgages could operate efficiently and effectively even if Fannie Mae's and Freddie Mac's government sponsorship were altered. However, the broader potential effects of ending that sponsorship remain uncertain.

For example, the effect of any change upon the GSEs' affordable housing activities is unclear. The experience under the housing goals is only a few years old, and it is premature to judge how much of the GSEs' activity is driven by Congressional directive and HUD oversight and how much by the basic requirement of Fannie Mae and Freddie Mac as businesses to generate returns for their stockholders.

Altering government sponsorship could create the risk of a small increase in mortgage rates for the portion of the market in which Fannie Mae and Freddie Mac participate. The

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[18] For a detailed discussion of user fees, see Congressional Research Service (1996).

[19] The pay-as-you-go problem could be mitigated if there were a sunset date for the user fee.

entry of new competitors into the market could mitigate this effect. Although we have analyzed these effects and provided rough estimates, further research would be helpful.

As Congress considers these matters, we also believe there should be detailed analysis of the operation and market implications of the various alternative approaches. A wide range of suggestions has been made to reduce the benefits of government sponsorship or to increase the public benefits provided by Fannie Mae and Freddie Mac.

Ending or modifying government sponsorship would entail risk, but would also have benefits. The potential effect of privatization on mortgage interest rates or the availability of credit for affordable housing represent important risks. Potential benefits could include more active competition, more efficient credit allocation, reduced potential risk to taxpayers, and reduced government borrowing costs. While preserving the *status quo* would eliminate any uncertainty associated with ending government sponsorship, it has risks as well.

Fannie Mae and Freddie Mac are important institutions, and no change will occur without careful analysis and public discussion. We believe the analysis presented here and the additional work suggested can further such discussion.

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